

Practical Points.

The Treatment of Tuberculosis.

In an interesting address at the Annual Meeting of the Hospital Saturday Fund at the Mansion House on Saturday last, Dr. Arthur Latham, the prize essayist of the King's Sanatorium, delivered an address on the industrial classes and the treatment of tuberculosis. He said that out of every sixty-five people in the Metropolitan, one at least would be dead in five years' time from tuberculosis—dead from a preventable disease which owed its origin to filth.

He said deliberately that the public did not get full value for the money now spent, for the consumption hospitals were not properly organised for the immediate and economic relief of their patients. These hospitals had done a great work in the past, but they were not abreast of recent knowledge. Recent investigations had shown that consumptive patients were best treated in sanatoria.

He contended that the following reforms were essential:—1. The establishment of a number of institutions, municipal or otherwise, where on payment of a small fee any working man or woman could be examined, the early detection of the disease being of the first importance. 2. All hospitals to be brought into close connection with various organisations existing outside, this being done by the employment of almoners. 3. The discarding of the system of letters of recommendation, cases to be admitted on their merits. 4. Every consumption hospital to be in close touch with sanatoria in the country. If these four reforms were carried out, the economic value of consumption hospitals would be increased tenfold.

Disinfection of the Clinical Thermometer.

In a letter to the *Philadelphia Medical Journal*, Dr. W. H. Dyer calls attention to a method of disinfecting the clinical thermometer by putting a few drops of formalin in the thermometer case. As this convenient method has not received the recognition that it deserves, it has seemed well to again call attention to it, and report the result of some tests of its efficiency.

If two or three drops of formalin (40 per cent. solution of formaldehyde) are put in the thermometer case, they are taken up by the absorbent cotton usually kept at the end of the case, which will remain moist for a number of days. Formaldehyde gas is freely given off from the formalin, but is confined in the air-tight chamber of the case. If the formalin has been freshly added, the surface of the thermometer, when taken out of the case, is often covered with minute sweat-like drops of fluid, showing the high humidity. The small size of the chamber, the high humidity, and the high temperature, if the thermometer is carried in the vest pocket, furnish conditions very favourable for the disinfectant action of the formaldehyde.

The tests which are here reported show that the disinfectant action of the formalin remains active for several weeks or as long as the pungent, irritating odour of the gas is marked. In practice it is well to add the formalin about every two weeks or oftener if the odour seems at all weak, and the cap should be kept on the case when the thermometer is being used in order to prevent evaporation. The thermometer should be washed in water both before and after using.

If by mistake the thermometer is put directly into the patient's mouth, the taste is somewhat unpleasant, but no serious effects result.

Where the thermometer has been used for a patient known to have a contagious disease it is best to disinfect it outside the case, or at least fresh formalin should be added and the thermometer exposed to the gas a longer time than usual (several hours) before using again. This method should not be employed when it is desired to use the same thermometer within a few minutes for another patient; for example, in hospitals and dispensaries, or when a physician is attending two patients in the same family. Under such circumstances disinfectant solutions should be used.

The organisms used and the number of tests made with each were as follows:—*Staphylococcus pyogenus aureus* 4, *P. typhosus* 3, *B. Subtilis* (spores) 3, *B. diphtheria* (pure) 4, mixed cultures from throats of diphtheria patients 8; and in three tests the thermometer was infected by putting it for a moment in the mouth of a healthy person.

When cultures were used a few drops of an emulsion of the growth were put on a sterile glass slide and a clinical thermometer, or a glass rod of similar size, was rubbed in this. When partially dried the thermometer was put into the case with the infected end uppermost—that is, away from the moist cotton—so that the disinfection would have to be gaseous rather than from the direct action of the solution. For a control a second thermometer was similarly infected and put in a case in which there was no formalin. Both cases were then put in the vest pocket. The exposure to the gas varied from five to twenty minutes; in most cases it was between ten and fifteen minutes. On being removed from the case the thermometer was immersed in a tube of bouillon and rinsed, in order to remove any traces of the disinfectant that might have been carried over from the case. The thermometer was next rubbed over the surface of a serum or agar tube, and then dropped into a fresh bouillon tube. The control thermometers were similarly treated, and all tubes were then incubated.

All the controls showed growth. Of the exposed thermometers, three showed growth, these having been exposed in cases in which formalin had been added several weeks before, and where the odour of the gas was very faint. That the absence of growth in the other cultures was not due to the presence of a small amount of the disinfectant which had been carried over from the thermometer case was shown by the fact that there was growth in them when the same cultures were inoculated from the controls.

The convenience as well as the efficiency of this method should secure it more general use by medical practitioners. The time consumed in mixing disinfectant solutions is so great, and their action so slow, that most physicians merely rinse their thermometers in water except when they use them for a contagious case. The fact that contagious diseases cannot be diagnosed in their earliest stages, and also that apparently healthy persons may harbour in their mouths the organisms of diphtheria, influenza, pneumonia, tuberculosis, and probably also of syphilis and other transmissible diseases, shows the importance of disinfecting each time after use.

By this method the thermometer is always disinfected after it is used with no loss of time to the physician except the time it takes once in two weeks to add three drops of formalin to the case.

[previous page](#)

[next page](#)