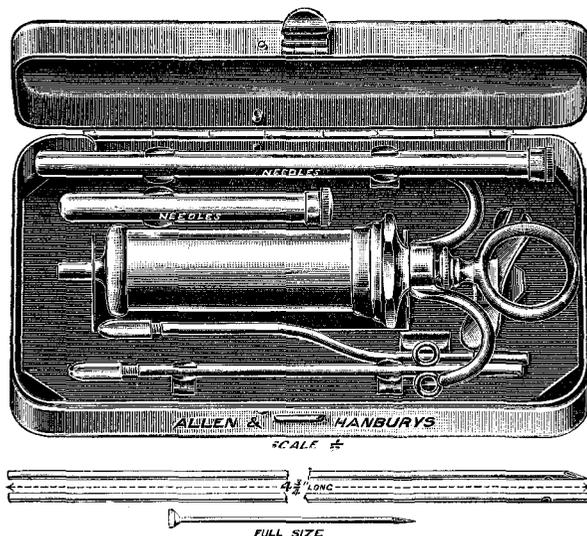


than were formerly employed, and the long cannulæ, as shown in the woodcut, are also of correspondingly larger calibre. The needles do not corrode so quickly as the smaller ones, and can, therefore, be used many times. The needles and cannulæ are contained in two metal tubes.



The syringe and fittings are all nickel plated, and are fitted into an aseptic case. The whole of the apparatus can be sterilised whenever necessary.

The instrument has been tested very exhaustively in several large military hospitals during a period extending over six months, and has given complete satisfaction.

The cost of the syringe complete is 45s. (£2 5s.) in case.

#### A CASE OF PERSONAL INFECTION IN ENTERIC FEVER.

BY LIEUTENANT-COLONEL D. WARDROP.

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A SOMEWHAT remarkable instance of personal infection in enteric fever has recently come under my notice, by which three individuals contracted the disease while nursing one case.

Private M., Royal Irish Rifles, was admitted to hospital on November 23rd, 1906, as a transfer from the troopship "Plassy," suffering from enteric fever. The case was a very severe one and marked by violent delirium, severe diarrhœa, and inability to control his sphincters. These symptoms are especially mentioned because it is believed that they were the cause of the subsequent infections. From the date of his admission

to December 8th the patient remained in a condition in which the above symptoms were very marked.

During his illness he was tended by four nurses and three orderlies. Of these one nurse and one orderly had been the subjects of enteric fever, so may be considered immune. Of the others, Sister S. nursed him from the date of his admission; Private F. was on special night-duty over the patient from his admission up to December 3rd, when he was relieved; Staff-Nurse M. was night-nurse in attendance from December 1st. One and all of the nursing staff complained of the difficulties they had to contend with in the execution of their duties. Frequently the patient was seized with unusually violent paroxysms of delirium, throwing himself about the bed and requiring constant personal restraint. During these attacks he expectorated in every direction and voided urine and fæces freely.

On December 23rd Private F., who had been most assiduous in his duties as night orderly, reported sick, and ran a typical course of enteric fever. On January 1st Sister S., who had nursed Private M. for some five weeks, developed an attack of enteric fever, which also ran a typical course. On January 3rd Staff-Nurse M., the night-nurse in the Medical Division, who had assisted largely in the nursing of Private M., was taken ill, and was found to be suffering from enteric fever.

In all these cases the diagnosis was confirmed by the serum test, and in every instance a marked reaction was obtained. There appears to be no possible doubt that these three attacks were all contracted by personal infection while nursing Private M.

The contraction of enteric fever by personal infection is generally held up as an example of careless nursing, but in this instance it was not the case. Both nurses and orderlies were most careful to carry out the instructions provided for the nursing of this disease. No precaution could have prevented the free bespattering with infective material which they one and all were subjected to, and, although thorough cleansing and disinfection were always resorted to as soon as possible, frequently considerable time elapsed before this could be carried out. It is rather a case showing the danger that may at any time arise in the nursing of this class of disease. Had the nursing staff shown less self-effacement it might possibly have been better for them but not so well for their patient. The interesting point is the fact that one man infected three out of six of those in attendance on him, two of whom were already immune, a very unusual occurrence. How the infection occurred I am not prepared to say. Direct transmission through the air is admitted as a possibility, but I am inclined to think that these attacks were all due to some minute portion of infective material coming into contact with the mouth, either by direct bespattering from the patient or by brushing something from the face with an already infected hand.