tioned that during the season 1898-99, typhoid fever was more than usually prevalent, and that 3 of the 5 cases occurred in the early part of the year. But as typhoid is so markedly a seasonal disease, probably a closer, more accurate, and weightier comparison is made, by considering the different autumnal and winter epidemics, since one may justly state that the typhoid inoculations have been performed during the season 1899-1900. Omitting, therefore, the cases which have in past years occurred during the spring or summer, the following list gives the seasonal occurrence:

TABLE II.

Season.	No. of Nurses Who Contracted Typhoid.
1895-6	3
1896-7	2
1897-8	8
1898-9	6
1899-1900	0

The numbers are, of course, very variable, largely dependent on the severity of the epidemic, and the consequent number of patients under treatment, still it seems a significant fact that the season 1899-1900 should be only one during which no undoubted case of typhoid has been contracted by the staff, even though the epidemic during the last autumn and winter has been exceptionally light.

It may be that in both instances the figure 0 is not strictly accurate, as one of the nurses inoculated in the first week of October, 1899, suffered from an indefinite febrile attack in January of this year. The facts are as follows:

During the second and third weeks in January she felt tired, lost her appetite, and complained of "chilliness." On January 18th she had headache, and on January 21st there was slight cough, epistaxis, and shivering. I saw her on January 22nd, when the temperature was 100.6° F. The abdomen seemed a little full, but there was no pain nor tenderness; the spleen was slightly enlarged to percussion and just palpable, and the tongue was red and moist. There was persistent frontal headache, a pulse of 88 per minute without any peculiar features, and an examination of the chest failed to disclose any physical signs to account for the slight cough which existed. The evening temperature was 103° F., the physical signs being unaltered. Next day—that is, January 23rd—as the headache continued, 10 grs. of phenacetin were given. This was followed by profuse perspiration, whilst the temperature fell rapidly, and with the exception of 99.4° on January 24th was not raised on any subsequent occasion. On January 26th there seemed to be some injection of the nasal and pharyngeal mucous membranes, but with this exception no other symptoms or signs were observed. On January 30th an examination failed to show any enlargement of the spleen either to percussion or palpation, and it is this fact, coupled with the history, which necessitates the consideration whether one had to deal with an abortive attack of typhoid fever.

Unfortunately the presence or absence of the Widal reaction loses its diagnostic efficacy in such cases after the use of typhoid vaccine. But supposing one granted that this ephemeral fever was a genuine attack of typhoid, then I think its very mildness and evanescent nature would speak only too strongly for the contention that there is "an increased power of resisting infection by living typhoid bacilli," and certainly the occurrence of such attacks would never be a cause of anxiety.

NOTE.

1 Two of these four nurses were for different reasons only kept in the typhoid ward for short periods of two and three weeks.

ANTITYPHOID VACCINE.

By T. WILSON, L.R.C.P.

My experience of the use of the antityphoid serum of Professor Wright, of Netley, among troops in South Africa, is that if it does not render the typhoid bacilli innocuous, it at

least will modify favourably an attack of typhoid fever. In my opinion it is advisable for all who are going to the seat of war to be treated by it.

In inoculating the men belonging to the City Imperial Volunteers I made them

1. Abstain from alcohol for three days.
2. Take an aperient on the morning of the fourth day. On the morning of the fifth day I inoculated.

The men were arranged daily in batches of about 40 in number. The first lot to be inoculated were rather funky; and a few almost fainted while waiting for their turn. These I kept back until the following morning, when they appeared to be all right. I was fortunate enough to get assistance from Staff-Surgeon Bradley and Miss Jessie Southwell, Nursing Sister.

The following case will illustrate the course of illness after inoculation:

A gentleman travelling by the *Garth Castle* to South Africa with his regiment was inoculated with antityphoid vaccine on January 24th. He was 35 years of age. He weighed 155 lb. and had always enjoyed good health. The loin was the place selected for inoculation; the part was cleansed well by soap, then washed with solution of perchloride of mercury. The syringe and needle were sterilised as directed with boiling olive oil, the syringe filled with antityphoid vaccine, the loose skin caught between the forefinger and the thumb of the left hand, the skin punctured in the centre of this fold by the needle, and $\frac{1}{2}$ c.cm. injected. The needle was then withdrawn and the part dressed with absorbent wool and flexible collodion. (At this stage the patient is apt to faint, and it is necessary to order rest for twenty-four hours.) Six hours after inoculation the temperature was 99.6° F., pulse full, bounding, face flushed, slight frontal headache, suffered from loss of appetite. At 10 P.M. (six hours later) the temperature was 101° F. He complained of thirst, severe headache, rigor, and darting pains in the groin, back, chest, and axilla; the tongue was dry and furred. There was a red patch surrounding the seat of inoculation. Thin red lines running to the groin and axilla were very distinctly marked and tender to the touch. On the morning of January 25th the temperature was 102° F. He had passed a restless night, the headache was worse, and the tongue was dry and thickly furred. He felt thirsty and complained of pain on movement in bed; the lymphatic glands were still inflamed. The temperature in the evening was 99° F. He felt much better, suffered only slightly from headache, and the tongue was almost clean. On the morning of February 26th the temperature was 98.6° F., the headache gone, the tongue clean, the red lines (lymphatics) had almost disappeared, and the patient partook of a hearty breakfast and walked on deck before noon feeling fit and well.

The following case in which the antityphoid serum appeared to have a favourable effect on gonorrhoea is of interest:

A member of the City Imperial Volunteers on his way to Capetown consulted me complaining of great pain on urination; the lips of the meatus urinarius were red and swollen; there was a copious discharge of a thick yellowish green colour. I had arranged to inoculate forty volunteers on the following morning with antityphoid vaccine, and the patient's name was on the list. At 10.30 A.M. on January 25th I inoculated the patient in the groin with $\frac{1}{2}$ c.cm. of antityphoid vaccine; perfect rest was ordered for the two following days. The temperature in the evening was 100.8° F., and on the following morning 98° F. The lymphatics of the groin and penis were red, swollen, and painful to the touch. The glands penis was red, swollen, and of a bright red colour. There was no longer pain on urination. The discharge had ceased to flow on the evening of the inoculation. After three days the inflammatory trouble disappeared, and when I last saw the patient on February 4th the parts were perfectly healthy.

In the following case of chronic gleet the serum had a beneficial effect, and I believe recovery would have been permanent had the patient carried out instructions:

A gentleman consulted me about a chronic gleet which troubled him very much. I tried the usual remedies for a week without any definite result, and as he was going on active service (Modder River) I proposed inoculation with antityphoid vaccine. The result was at first very satisfactory. The temperature was 100.4° F. the same evening, and on the following morning 97° F. The running ceased, and the lymphatics were only marked around where the needle entered. On the second day after the inoculation he celebrated his birthday too well but not wisely. He drank several whiskies and soda and a bottle of champagne (against strict instructions to the contrary), and the third day the old symptoms reappeared.

EPIDEMIC LARYNGITIS AND TRACHEITIS AMONG TROOPS ON THE VOYAGE TO SOUTH AFRICA.

By CHARLES GIBBS, F.R.C.S.,

Surgeon to the Langman Field Hospital; Assistant Surgeon to Charing Cross Hospital; Surgeon to the Lock Hospital.

On board the steamship *Oriental* we had 600 of the 3rd Royal Scots Militia, a draft of Essex men, a draft of Warwickshire men, and a draft of Royal Engineers, making more than 1,000 men all told. We had also 60 officers. After the first day's sail we settled down to medical work, which was under the administrative charge of Major Drury, R.A.M.C. The non-commissioned officers and men of the Langman Hospital