

Hon. Mr. DANIEL.—I thought it was some other man's name that was attached to the typhoid vaccination?

Prof. STARKEY.—Do you mean the man who prepares those vaccines out there—Haffkine?

Hon. Mr. DANIEL.—That is the man.

Prof. STARKEY.—He was director of the Imperial Research Laboratory in Bombay, where I was. His name was made over the plague prophylaxis and the cholera prophylaxis.

Hon. Mr. DANIEL.—His name was associated with the typhoid?

Prof. STARKEY.—Oh, yes, we prepared typhoid prophylactic at the laboratory there for use.

Hon. Mr. DAVID.—What results do the statistics show?

Prof. STARKEY.—Dr. DeVeber has full statistics gathered by the Americans—they are the best, because they have taken a lot of trouble in compiling them—and roughly speaking I should express the results in this way: that the protection conferred is almost complete; that is, where you take a lot of people who have been vaccinated you will find amongst them very, very few who will contract the disease, very few indeed, showing how complete the protection is.

Dr. SCHAFFNER, M.P.—You said you would refer to the reaction; what is the nature of the reaction?

Prof. STARKEY.—I have used that term, reaction; it is a kind of generic term, really, including several things. For instance, you get trouble caused by faulty technique, that is, dirty instruments, &c.; then again, if the prophylactic had been badly prepared there is a source of trouble; you may get extraneous germs in there, undesirable ones; and lastly, there is a trouble caused by the broth itself sometimes.

Dr. SCHAFFNER, M.P.—That would apply to all vaccines, not particularly to that one.

Prof. STARKEY.—Certainly, but wherever you get any trouble whatever, in any shape or form of vaccination—I would not limit it to typhoid vaccination—you will find that the people who get up the agitation against it put it down to the credit of the particular vaccine being used.

Hon. Mr. DANIEL.—Are the dead bacilli injected, or is it the toxin?

Prof. STARKEY.—The dead bacilli. The toxins in the case of typhoid are mostly inside the bacillus itself; there is very little toxin excreted, very little.

Hon. Mr. DANIEL.—It is different from others, then?

Prof. STARKEY.—Bacteria do differ in that respect. Some of them excrete a lot of toxin. The tuberculosus bacillus, for instance, apparently does not excrete any; it seems to retain it all inside the cells.

Hon. Mr. MURPHY.—What is the character of a sharp reaction after injection?

Prof. STARKEY.—You get headache, a pain in the back, rise of temperature.

Hon. Mr. MURPHY.—Just an ordinary toxemia?

Prof. STARKEY.—That is all, and it passes off very rapidly. The reaction usually appears in about four to six hours if you do get it.

Hon. Mr. DANIEL.—You do not always get it?

Prof. STARKEY.—Oh dear, no.

Hon. Mr. Fiset.—No effect at all?

Prof. STARKEY.—No effect at all. I have had the prophylactic twice myself, and in my particular case nothing happened. I would not have really known from my condition that I had received any at all. There is absolutely no danger. I do not hesitate to say this, that taking it for granted you have the prophylactic properly