

prepared, and in the hands of competent men administering it, I feel no hesitation whatever in saying there is absolutely no danger whatever.

Hon. Mr. DAVID.—Not worse than the reaction in the case of smallpox vaccine?

Prof. STARKEY.—The two cases are not quite similar. In the case of vaccination against smallpox you are dealing with the living germ, the vaccine contains living germs, so that when you put them into a body they multiply there, inside the body; but in the case of the typhoid you are dealing with bacilli which have been killed, and they cannot multiply in the body because they are dead. But the mere fact of introducing those dead bacilli into the body brings about a state of immunity in the system.

Hon. Mr. MURPHY.—That immunity is caused by the production of anti-bodies?

Prof. STARKEY.—That is right.

Hon. Mr. DAVID.—Do statistics show that the protection afforded by that vaccination is as good as the protection given by the vaccination against smallpox?

Prof. STARKEY.—Yes, almost as good as that.

Hon. Mr. MURPHY.—It will not last as long?

Prof. STARKEY.—It does not last as long. I have just one other little note here indicating the circumstances under which I would personally advise its use. I do not think there is any call to have everybody vaccinated. Take a town or a country side where there is absolutely no typhoid; I do not see that there is any object in asking those people to undergo vaccination.

Hon. Mr. DAVID.—Then you do not think that all the Members of Parliament and Members of the Senate ought to be vaccinated?

Prof. STARKEY.—Here is a beautiful case in point—

Hon. Mr. DAVID.—Taking the Ottawa water as an example?

Prof. STARKEY.—Here you have a lot of gentlemen coming up to a place where they have to consider in their own minds the possibilities or chances of their contracting this disease, typhoid. If they know that they run a risk, they could protect themselves; they know they are coming into a dangerous zone, so to speak, and they could protect themselves against it.

Hon. Mr. DANIEL.—Has this vaccination any effect whatever in the case of a man who has already got the disease?

Prof. STARKEY.—There you are getting on a little doubtful ground. If you could get hold of a man who has contracted the disease and is in the early stage, and inoculate him, you would probably do some good; but once the disease is developed, then it would be a mistake.

Hon. Mr. DANIEL.—The trouble is, you do not know whether he has the disease until it develops.

Prof. STARKEY.—No, but that is an important point for the public to realize, I think, that prophylaxis is not treatment. I think that is a point that might be brought out.

The CHAIRMAN.—I might say that in the Canadian Pacific Railway, on all the different divisions, we have tried it in the cases of typhoid fever, and we found that if you give it in the early stages you do not abort the disease, and you do not shorten the disease, but you prevent complications.

Hon. Mr. MURPHY.—You find that in actual practice?

The CHAIRMAN.—Well, last year we vaccinated on the Alberta division 8,400 men. Of course the C.P.R. surgeons out there have a great many cases of typhoid in the