

Hon. Mr. DAVID.—Can a man receive vaccination against small pox and typhoid fever at the same time?

Prof. STARKEY.—You can have two or three vaccinations put into you at the same time. You can be vaccinated against typhoid, cholera, and the plague all at once. If you take dead typhoid bacilli and inject them into your body they will set up a reaction in the blood, in the tissues, whereby what we call anti-bodies—a kind of antidote, if I may use a popular term, although it is not strictly scientifically correct—a kind of antidote is manufactured in the blood, and that causes an immunity because when you come along with a fresh dose of living germs, that antidote, or anti-body which has been manufactured in the system prevents them from getting a foothold.

Hon. Mr. MURPHY.—The peculiar effect is that the dead germs will practically cause the same thing.

Prof. STARKEY.—Yes.

Hon. Mr. MURPHY.—The dead germs are just as potent as the living germs themselves; that has been proven.

Prof. STARKEY.—You know the anti-diphtheretic serum, where they manufacture it in a horse, they start with the dead culture—they give the horse first of all a little dead culture, and within a day or two give him a little dose of a living culture, and by that time these anti-bodies are present in the horse's blood, and then they can go on and give larger doses of the living virulent culture, until there are so many of these anti-bodies in the blood, that you cannot give that horse diphtheria under any circumstances. He can stand as many bacteria germs as would kill a regiment.

Hon. Mr. MURPHY.—The idea of that is that if they gave him the living germs at first they would be liable to kill the horse?

Prof. STARKEY.—Yes.

Hon. Mr. MURPHY.—He becomes to a certain extent immunized before he gets the living germ.

Hon. Mr. DANIEL.—There must be some solution of the dead bacilli in order to produce the anti-bodies.

Prof. STARKEY.—Undoubtedly these dead typhoid bacilli, when you inject them under the skin, disappear absolutely.

Hon. Mr. MURPHY.—They dissolve?

Prof. STARKEY.—Yes.

Hon. Mr. MURPHY.—And the toxine which is within the cell itself is liberated?

Prof. STARKEY.—Yes.

Hon. Mr. MURPHY.—And begins to produce irritation which causes the anti-bodies to be formed?

Prof. STARKEY.—Yes.

The CHAIRMAN.—I have here a lecture by Col. Sir Wm. B. Leishman, F.R.S., R.A.M.C, Professor of Pathology, the Royal Army College, London, which will be of interest to the Committee.

After some introductory and historical remarks *re* inoculation for typhoid, Sir William continued: At that time a big epidemic of typhoid fever broke out in the Baring Asylum, and as Sir Almroth Wright was just going off to India as a member of the Plague Commission, and had to leave England in a few days, his assistant, now Sir David Semple, took his place to carry on the inoculation. Sir David Semple was incubating Malta fever and he collapsed. Then Sir Almroth asked me to go down and carry on the work. This first introduction to the subject certainly was a very valuable lesson to me.

You must all be familiar with the strong arguments against inoculation in the shape of the negative phase. This phase explains itself very fully. They say that