

a voluntary thing on the part of the troops. The results were what you might term moderately encouraging. That was the earliest start of the thing.

Hon. Mr. MURPHY.—How did you make the preparation there?

Prof. STARKEY.—Simply broth culture, killed afterwards, of course.

Hon. Mr. MURPHY.—Killed with heat?

Prof. STARKEY.—Yes, and the addition of a little antiseptic to keep the broth.

Hon. Mr. DAVID.—How long ago was that?

Prof. STARKEY.—In 1898 they began, and they have continued practically ever since with one or two little breaks; but in the British army they have never pushed it to the same extent as they have done in the American army.

Hon. Mr. MURPHY.—The French and German armies push it now?

Prof. STARKEY.—They are beginning to push it there.

Hon. Mr. MURPHY.—What is the reason that the English do not adopt the German method when it appears so valuable?

Prof. STARKEY.—That I cannot tell you.

Hon. Mr. MURPHY.—The same old English conservatism and bulldog tenacity?

Prof. STARKEY.—It may be that; I cannot tell you.

Hon. Mr. MURPHY.—Or jealousy of adopting anything German?

Hon. Mr. STARKEY.—No, I wouldn't say that; I wouldn't say jealousy. They have been accustomed to prepare all prophylactics on that method.

Hon. Mr. DANIEL.—They may think that it is just as good as the other.

Prof. STARKEY.—They do; otherwise they would not stick to it.

Hon. Mr. MURPHY.—It is ascertained that broth has qualities which alone would be liable to cause trouble as compared with the other—an extra irritation?

Prof. STARKEY.—That is the point. Mind you, all broths do not cause irritation; that is the strange thing; it is not every sample of broth that you take that will cause trouble, but every now and then it seems to be something in the meat, some change has taken place in the meat in getting the extract, which causes trouble. Just to prove that to you, that same reaction has been shown when testing gelatines as you get with pure meat extract. Of course, it is a mixed extract, but every now and again you will get a sample of gelatine which, when inoculated into a small animal, will cause decided mischief. Now, apparently, to all intents and purposes, the gelatine is just the same as any other samples that have been treated.

Hon. Mr. DANIEL.—In regard to the agaragar, does that indicate decomposition at all?

Prof. STARKEY.—No, it is quite fresh, and the growth is a 24 to 48-hour growth, and then it is scraped off.

Hon. Mr. MURPHY.—They do not take the agaragar at all; they just take the growth?

Prof. STARKEY.—That is all. You see, the idea there is to get bacteria as pure as you can, and doubtless as time goes on they will improve still further.

Hon. Mr. DANIEL.—What is the name of the doctor out there in India who started this thing?

Prof. STARKEY.—Dr. Wright; he is now Sir Almoth Wright.

Hon. Mr. MURPHY.—The author of the Opsonian theory?

Prof. STARKEY.—Yes; he has given up that work now. Dr. Leishman, who was here in Ottawa not long ago, has succeeded him, and he is practically directing that part of the service now.