

doubtful examples. With these our success so far must, for practical purposes, be considered incomplete. Still, in these cases, the prospect fills us with hope.

With a few diseases already great success has been attained. First in place, as it was first in time, I may mention fowl cholera—a malady common in France, where at times it decimated the poultry yards. Pasteur was able to isolate the bacillus causing this, to grow it, to attenuate it, with the attenuated virus to give a mild form of the disease to the fowls, and thus to protect them from contracting the fatal form. Thereby the disease has been overcome, if not eradicated, in various parts of France.

Another malady, very fatal in certain districts, affecting especially cattle, and known as “black-leg,” “quarter evil” or “symptomatic anthrax” has been most successfully combatted by preventive inoculation, the method suggested by Arloing, Cornevin and Thomas, and elaborated further by Kitt, being extensively employed in Switzerland and lower Austria. Here the experience gained from years of study of the disease has shown that a different method of attenuating the microbe is best employed. The flesh of an affected animal is taken, is dried and powdered and subjected to heat. By this means the spores of the contained microbes are attenuated, and a two-fold inoculation of the powdered muscle under the skin induces a mild disease and is protective. There is but one disadvantage in the method. Every endeavour has so far not succeeded in rendering it absolutely safe. After a series of, it may be, ten thousand successful vaccinations, suddenly, out of a batch of ten animals inoculated, eight may die as an immediate consequence of the treatment. The loss may thus fall terribly upon a single owner. This, however, has not prevented the Bernese farmers from employing the method, for they freely recognize its immense economic value to themselves. To obviate the difficulty and minimise the possible individual loss they have constituted themselves into a syndicate, and any loss is distributed all over the members of the same.

So, too, the disease known here as “swine erysipelas,” in France as “rouget,” in which the mortality is very high, often