

number of glycerinated points and tubes purchased in the open market; and he states further that the tetanus germ cannot grow in glycerinated vaccine or on dry points. Here, too, we find reference to the subject by the British Commission, so frequently quoted:—"A female child of two months developed tetanus on the 23rd day after vaccination. It was found that the child was vaccinated from the arm of a female infant aged five months, and at the same time and with the same lymph six other children were vaccinated, and none of them developed tetanus (lock-jaw) or sore arms." The general conclusion is, that in most cases the tetanus infection is taken into the system subsequent to vaccination.

Syphilis. With the use of glycerinated calf lymph and the discarding of humanized lymph, this question can be eliminated from the list, as the bovine species is totally unsusceptible to syphilitic infection.

Tuberculosis. The remarks just made in reference to syphilis may be taken to apply almost equally to tuberculosis, for it is a well established fact that calves rarely have tuberculosis; indeed, this extremely rare condition is perfectly safeguarded by the subjection of the calves to what is known as the tuberculin test before being vaccinated, and the post-mortem adds an additional safeguard, if such were necessary.

Leprosy. This, the last of the list, may be dismissed by stating the objections are covered in the remarks on tuberculosis.

The conclusions arrived at by Dr. Ernest Hart regarding the dangers from vaccination, after a careful investigation of the subject in conjunction with Dr. Barlow, for the Royal Commission on Vaccination, may be summed up as follows:—

"The danger from invaccinated disease is almost nil."

"In a fractional percentage of cases, grave complications arise, but in almost every instance they are due to inflammatory or septic affections, such as are common to wounds, and the conditions are found to depend on more extraneous circumstances, than on any inherent properties contained in the vaccine itself."

Children, after vaccination, are at all times liable to suffer from various harmless rashes, which may give rise to some distress. If, however, the child is healthy, its circumstances wholesome, the lymph carefully selected and properly used, and if reasonable care be exercised after vaccination there is no doubt the dangers of the operation are extremely small.

Ontario Experience of Vaccination.

In concluding this important part of the subject, I would sum up my experience of 16 years' work in Ontario, during which, either personally or through the aid of assistants, over 40,000 vaccinations have been performed, and performed often in the most unsatisfactory conditions, I have never seen a fatality follow vaccination; I have never seen a life in jeopardy by reason of the inoculation of vaccine, and I have yet to see the first case where illness of either a temporary or permanent character could be ascribed to bovine vaccine. Further, in those cases where any injury has followed the operation, it has always, in my experience, been due to contributory negligence allowing of a secondary infection, the greater part of which could have been prevented, had

* Bulletin 12—1903.