

septicemia, tetanus, leprosy and tuberculosis have been, or are, the most important.

*Syphilis and Leprosy.*—When arm-to-arm vaccination with humanized lymph was the prevailing practice, the danger of infection by syphilis was not an imaginary one, and we have records of not a few deplorable cases. At the present time no one would think of arm-to-arm work in the wide sense of the term. Some, still, after vaccination of one member of a family with bovine lymph, vaccinate others in the same family from the first. Even in so limited a use as this of the humanized lymph there may be danger, unless personal history of the vacciner be completely known. It is claimed that the results of this method are better than where bovine lymph alone is employed. The weight of opinion seems to be against this view. Cattle being immune to syphilis, bovine lymph cannot convey the disease. Syphilis may therefore be spoken of as a danger of the past, where modern methods are carried out. Leprosy falls into the same catalogue with syphilis, since cattle are absolutely immune to it also.

*Tuberculosis.*—Both clinical and experimental work prove that danger of transmission of tuberculosis in any degree to be so small—even where arm to arm vaccination was the custom—that Nothnagel is able to say there has been no well authenticated case recorded. C. Fox has seen lupus three times in scars of vaccination, whether due to it or not it is impossible to determine. The care taken in the choice of animals from which lymph is prepared by modern methods, effectually removes all risks of conveying disease by it, even should Koch's belief, that bovine tuberculosis cannot originate the human form, be found incorrect.

*Erysipelas.*—Erysipelas and septicemia, with its various localized manifestations (e.g., phlebitis, phlegmon, metastatic abscesses, etc., etc.), have been amongst the common and most fatal complications of vaccination, and they occur in all degrees of severity. So recently as in the ninth edition of the *Encyclopædia Britannica*, the statement is made in an article on vaccination that erysipelas, more or less marked, is a normal feature of its course. Were it not that the article is written by one who is evidently an anti-vaccinationist it would be difficult to understand his position. That the erythematous areola surrounding a typical vaccine pock is to be considered erysipelatous, is simply to arbitrarily extend the term so as to include whatever one wishes. Erysipelas, leaving the question of causation to one side, has a definite clinical history which distinguishes it from other infections, and this history is quite different from that of normal cowpox as seen in the human species. It would be strange, moreover, that a disease to which