

continue his observations. On the 16th of March, 1798, he vaccinated his second case, a boy named Summers, with virus from the teat of an infected cow, and the vaccine lymph was transferred from Summers to William Pead, while from William Pead several children and adults were likewise vaccinated, and from one of this third of the series the lymph was transferred to several others. Several of these persons were next inoculated with variolous pus without effect, and Jenner ascertained that the vaccine lymph in passing through a series of five individuals retained the property of rendering the vaccinated insusceptible to the contagion of small-pox.

These were the cases which were published in the Inquiry, which appearing in the latter part of 1798 created immediately a most profound impression. It is unnecessary for me here to state in detail how Cline, Pearson, Woodville and others immediately took up the process, or how, long before Jenner's death, the process of vaccination had spread all over the world, and he had been the recipient of grants of £30,000 from Parliament, and had been given honorary degrees at Oxford and elsewhere. Already, before his death, the diminution in the small-pox mortality in the leading countries of Europe was very remarkable. Dr. Parr, the greatest of English vital statisticians, has made the following calculations as to the London death rate in periods previous to the introduction of the Registration Act, and Dr. McVail has continued the series up to 1882. No words of mine can be more eloquent than these figures.

With the process of time we have become better acquainted with what constitutes satisfactory and successful vaccination. Jenner held, and his own observations upon those who had accidentally taken cow-pox strongly supported the opinion that a single attack of cow-pox, and consequently a single vaccination, conferred immunity for the rest of life. Before his death this had already become seriously doubted, but it was long before re-vaccination was generally adopted; it was long, indeed, before the first serious attempt was made to enforce vaccination of the whole population in Great Britain; up to 1853 vaccination was optional, and only in 1872 was it made obligatory. Even now at the present day re-vaccination is not enforced for the whole population, save in Prussia. But how effective this is is shown by the following table, or better still by the diagram here copied from the report of the German Vaccination Commission of 1884 in the *British Medical Journal* (for diagram see page 89), showing the good effects in a class of population which is efficiently looked after, namely, the army. For comparison the accompanying diagram shows the small-pox cases and deaths per 100,000 in an