Subsequent observation has shown that this was in reality the true explanation of the fact.

Dr. Woodville considered small-pox and cow-pox as very closely allied in their nature, indeed, “ to a very principal point essentially the same,” and consequently re­commended the general adoption of cow-pox, as an effec­tual preservative from the infection of small-pox, as perfectly sale and free from danger, and incapable of being propaga­ted by infectious effluvia. This last he considered a very strong circumstance in its favour, since small-pox, even in its mildest form, as produced by inoculation, tended greatly to swell the bills of mortality, by spreading the infection from the sick to the healthy.

It was during the progress of Dr. Woodville’s experiments at the Small-Pox Hospital that the merits of vaccination began to be appreciated, and the practice of it generally introduced into all parts of this country ; and the publication of his Observations in 1800 may be regarded as marking this epoch. At this period, indeed, the efficacy of vaccina­tion as an anti-variolous agent was so generally admitted, and the practice so universally adopted, that, in the course of a few months. Its benefits were extended to many thou­sand persons in all parts of this island, and matter found its way to France. Italy, Germany, Holland, Turkey, most of our colonies, and the United States of North America. Numerous were the publications, in all languages, announcing the success of the practice; and almost every one agreed in this, that it gave as perfect protection from the infection of small-pox, as if the individual had once had the natural or inoculated disease.

Many of the partizans of vaccination, however, went much farther than this, and asserted that those who had once gone through the vaccine disease, were at no subsequent period of their lives liable to take small-pox. When, therefore, cases of small-pox did occur after vaccination, they endea­voured to explain away the fact, by asserting that it was not true small-pox, or that the individual had not gone through the true, but a spurious vaccine disease. This was, indeed, claiming for vaccination a power which was not possessed by any other disease. There is a class of dis­eases which usually occur but once during the course of life, but though a second attack is not a common occurrence, still it is every now and then met with ; and there are very few medical men of any standing in their profession who have not met with cases of second attacks of measles, scar­let fever, small-pox, typhus, &c. Dr. Thomson of Edin­burgh, in his work on the Varioloid Epidemic of 1818, was the first to point out this clearly with regard to small-pox ; and had the circumstance been duly attended to when vaccina­tion was first introduced. It would have prevented much of the controversy which has since arisen. It was un­reasonable to expect from vaccination a protective power greater than that afforded by small-pox itself; and yet it was from the advocates of vaccination advancing this doctrine, —a doctrine apparently borne out by the perfect immunity afforded to so many thousands vaccinated in all parts of Europe on its finit introduction,—that others, who had seen cases of small-pox after it, were led to deny altogether its anti-variolous power, or at least to affirm that it only gave im­munity from the disease for a very limited number of years.

It was not, however, till the year 1818, that the true va­lue of the protective powers of vaccination was properly understood. During the years 1816-17-18, small-pox raged epidemically in various parts of Europe, and attacked both the vaccinated and variolated, as well as those who had neither had cow-pox nor small-pox. Chicken-pox was at the same time extremely prevalent, and the phenomena of the two diseases were found to be frequently and generally interchanged. Dr. Hodenpyl of Rotterdam, Dr. Thomson of Edinburgh, and MM. Berard and De Lavit of Montpel­lier, who all described this epidemic, agreed in regard­ing small-pox and chicken-pox as the same disease, which could be shown to originate from the same source. But the most important fact, and the one most interesting to humanity, was the ascertaining the comparative mortality of small-pox, when it attacked these three classes :—1st, the vaccinated; 2d, the variolated, *i.e.* those who had small-pox; and, 3d, those who had neither been vaccinated nor had small-pox. The conclusions at which these different writers arrived were nearly the same. Of those who had neither had cow-pox nor small-pox, 1 out of every 4 who were seized with the disease died ; of those who had small-pox naturally, or by inoculation, 1 out of every 25 to 1 in 75 died ; while of those who had been vaccinated, and were afterwards seized with small-pox, not more than 1 in 330 cases died : thus showing the great superiority of vac­cination even to the small-pox itself, in protecting the system from the fatal effects of a second attack. Nor is it difficult to understand how this should happen. Small-pox is a disease not only very fatal, as proved by its cutting off a fourth of all whom it attacks, but it disfigures or renders infirm from an eighth to a tenth of those who recover. Its action is besides found to develope any latent disease, but particularly any scrofulous tendency which may exist in the constitution, and is thus indirectly the cause of death to a much larger portion of the human race than what at first sight appears. It is not therefore to be wondered at, that small-pox, attacking for the second time a constitution thus enfeebled, should cause a much greater proportion of deaths than takes place when it occurs after vaccinal ion ; for no fact is more firmly established than this, that vaccination neither develops any latent malady, nor engenders a predisposition to any particular disease.

The fact above mentioned, of the comparative mortality of the three classes, viz. the vaccinated, the variolated, and the non-vaccinated, has been, since 1818, repeatedly demonstrat­ed. One of the most accurate and interesting details, and one which ought to set the point for ever at rest, is that given by M. Bousquet in his *Traité de la Vaccine,* as having occur­red at Marseille during the epidemic small-pox of 1825. The population of Marseille, amounting to 40,000, may be di­vided into three classes, of which the respective numbers stand thus: 30,000 vaccinated ; 8000 neither vaccinated nor variolated; and 2000 variolated, that is, who had the small­pox either naturally or by inoculation. Of the 30,000 vaccinated, about 2000 were seized with the prevalent small- pox epidemic, of which number twenty died, or one for every hundred affected. Of the 2000 variolated, twenty were attacked, and four died, or one in every five cases. Of the 8000 non-vaccinated, 4000 were affected, and of this number 1000 died, or one out of every four cases. From this it follows, that one-half of the non-vaccinated, 1—15th of the vaccinated, and only l-100th of the variolated, took the disease. But such was the difference in the compara­tive severity of the attack in the vaccinated and variolated, that while the variolated part of the population were cut off in the proportion of one out of every 500, the vacci­nated part of the population only lost one out of every 1500; or, in other words, of an equal number of variolated and vaccinated cases, three variolated died from the second attack, for every one who died of the disease after vaccina­tion.

Many similar instances might be quoted; all of them demonstrating the very great security to the individual, and the saving of life to the community, afforded by the intro­duction of vaccination. This is a subject, indeed, which has engaged the attention of political economists ; and as it has been calculated that in Britain alone, before the intro­duction of vaccination, no fewer than 35,000 were annually cut off by small-pox, while in France the deaths from that cause amounted to 85,685, and proportionally large numbers occurred in other parts of Europe and America, the saving