

of a curious rustic legend or axiom to the effect that milkmaids or dairymaids who had contracted the mild and almost harmless cowpox were exempt from smallpox.

On May 14, 1796, Dr. Jenner vaccinated a boy eight years old with lymph from the hand of a dairymaid who had been ill with cowpox, and on July 1 following inoculated the same lad with smallpox virus. The experiment was successful and an account was published in June, 1798. The practice of vaccination gradually gained ground, though not without strenuous opposition, which has continued up to the present day. Wherever it is practiced the ravages of the smallpox scourge have been controlled and almost stopped, and most civilized countries now enforce compulsory vaccination.

According to the best medical authority we know nothing of the original cause of smallpox, but it never occurs save as the consequence of infection conveyed from one person to another. The contagion exceeds in virulence that of any other disease. The infectious principle is known to reside in the fluid contents of the pocks and in the crusts resulting from their desiccation, and it is probable that it is also contained in many of the fluids of the body. Moreover, it pervades the emanations from the person, so that actual contact with the sick is not necessary to the conveyance of the disease.

To what distance the volatile contagium may extend is uncertain, but it is known to have crossed a river 1,500 feet wide. In its fixed condition, attached to articles of clothing, bedding, merchandise, mail matter, paper money, etc., this infectious principle is very energetic and persistent. The disease is communicable at all periods of its course, even in the period of incubation before any symptoms have occurred, and as late as the close of the stage of decrustation, but probably it is most intensely contagious during the vesicular stage of the eruption. Even a dead body is capable of conveying infection. It may also be carried from one person to another without the person who carries it himself suffering from an attack. But, undoubtedly, those surroundings where poverty, squalor and dirt abound are favorable to the spread of smallpox. Fresh air, sunlight and cleanli-

ness are its foes.

The treatment of smallpox, according to proper authorities, consists in conserving the resources of the patient, and in early detecting and combating complications, such as chill or cold. No sort of medication or regimen exerts any curative effect in the proper sense of the word. Many so-called specifics have been vaunted, but there is no satisfactory proof that they have ever accomplished anything. Vaccination, although of such signal efficacy in preventing smallpox, is utterly powerless to cure it. No treatment will prevent pitting, although many persons who have undergone an attack are not permanently disfigured in this way.

Avoidance of exposure to the contagion will also prevent the disease, but this is difficult and often impossible to manage. All clothing, bedding, etc., which may have become infected are destroyed by fire, or, if too valuable to be sacrificed, are disinfected by heat as high as 212 degrees Fahrenheit, or by the fumes of burning brimstone. Everyone exposed to the disease usually is required to be at once re-vaccinated. Patients are capable of conveying the infection until all the crusts have fallen off.

The last great epidemic of smallpox, which literally overran all Europe and North America, began in 1870 and abated in 1873. Although there are, and always will be, sporadic cases, and even lengthy visitations of the scourge here and there throughout the world, modern methods of prevention and segregation in civilized countries at least may be relied upon to stop all threatened epidemics.

While there are many who still doubt the efficacy of vaccination, its value is probably as well proved as anything can be, short of a multiplication table. The experience of the Philadelphia Municipal Hospital, but one instance of thousands, might be cited. Although 9,000 cases were treated there during a term of years, not a single physician nurse nor attendant who had been properly vaccinated contracted the disease. Of 3,500 cases treated during one outbreak, not a single case was of a person who had been vaccinated within the recognized term of years.