

Smallpox is unquestionably a highly infectious or communicable disease, and, in the language of a past day, there is a virus or poison which can pass from the sick to the unaffected; when this transference occurs on a large scale we speak of an epidemic of smallpox. As Sir William Osler truly says, "It is not a little remarkable that in a disease, which is rightly regarded as the type of all infectious maladies, the specific virus still remains unknown." The same, however, is true of the common diseases of scarlatina, measles and chickenpox. Of some diseases, the virus is a bacillus or coccus, excessively minute fungi recognizable only under the microscope; but the bacteriologists are now beginning to speak of viruses so impalpable that they, unlike ordinary bacteria, can go thru the pores of unglazed porcelain filters, and are of ultra-microscopic dimensions. Some authorities conjecture that the virus of variola belongs to the group of filter-passers. The virus of smallpox, however, is very resistant and can be carried thru the air for considerable distances; it clings for long periods to clothes, books, furniture, etc.

I shall not now digress to give the clinical details of a case of smallpox; the eruption may be slight or it may be very extensive. It occurs in three forms, discrete, confluent and hemorrhagic. The most dangerous form of smallpox is the confluent, in which the face and arms particularly are covered with large pustular areas of a most disfiguring appearance.

The disease called chickenpox, or varicella, has no relationship to smallpox and does not protect from it, nor does smallpox protect from chickenpox.

### History of Smallpox.

There seems very little doubt that the home of smallpox was somewhere on the continent of Africa, altho it is true that there are traditions pointing to its existence in Hindustan at least 1000 B. C. One Hindu account alludes to an ointment for removing the cicatrices of eruption. Africa has certainly for long been a prolific source of it: every time a fresh batch of slaves was brought over to the United States of America there was a fresh outbreak of smallpox.<sup>2</sup> It seems that the first outbreak in Europe in the Christian era was in the latter half of the sixth century, when it travelled from Arabia, visiting Egypt on the way. The earliest definite statements about it come from Arabia and are contained in an Arabic manuscript

<sup>2</sup>Osler thinks the *pesta magna* of Galen was smallpox; Marcus Aurelius died of it.