

becomes an epidemic. That is to say, such is the normal tendency of this class of diseases, and I may instance cholera, typhoid fever, diphtheria, influenza and la grippe as examples. There can be little doubt that the plagues and pestilences, such as the Black Death which visited England in the 14th century after having spread all over Europe and caused the death of twenty five millions of people, were other instances of zymotic diseases; and the fact that such plagues and pestilences are of so much less frequent occurrence now-a-days, and so much less malignant when they occur in the more civilized parts of the world than elsewhere, gives us the first important clue to their comprehension, and we may hope to their extermination. For it has been and is just in proportion to the cleanly habits of a people that these diseases lose their fatal character. This suggests a close connection between *filth and disease*, and the more carefully that we look into the matter, following this clue, the more fully are we convinced that such is the case; that cleanliness of person and surroundings is the first law of health. Still, this does not fully explain the phenomenon of zymotic disease, since the advent of a specific cause of disease is necessary that the evil effects of uncleanly habits may be fully emphasized. This would seem to imply the existence of a specific disease virus or poison for each of these epidemics, the spread of which poison was favoured by the prevalence of uncleanly habits. Reasoning on this line led Pasteur, Koch, Cohn and others to the discovery of what will hereafter be regarded as the most important generalization of medical science in our century, namely, that which points to the existence of a special microbe, bacillus or living germ for each of the so-called zymotic diseases. The next step was to attempt the isolation of this germ, and with certain diseases this has been done. In the case of *Anthrax*, Koch has cultivated the bacillus and studied it throughout its complete development. The chart before you will serve to give an idea of the appearance of this enemy of mankind, as magnified about 15,000 times linear. In the next diagram I shew you both *in situ*, and isolated the *bacillus tuberculosis* from photographs by Koch. It is the study of this bacillus which has made Koch's name so widely known within the last year; but my purpose in emphasizing the matter is to draw your attention to the explanation which this theory of zymotic diseases offers of their sudden spread. The specific