

were. The period of protection may be becoming shorter and shorter, however long seemingly at first it may have been, and the hereditary insusceptibility to its protective influence may be gradually increasing. It was at first believed, as Jenner declared, that this influence would be continuous, and would render the constitution for ever after secure from the infection of small-pox. We know now that this is very far from being the case. It is very well known that the effect upon the system of many diseases, or rather probably of their accompaniments—the treatment, the hygiene of convalescence, the rest, is of a renovating or protective character, and that the subjects of them frequently experience greater vigor and freedom from disease for a long time thereafter than they had previously experienced. The fact, as appears, that while small-pox has decreased, measles and hooping-cough have increased, is brought forward as an argument in favor of vaccination. It appears probable that enteric fever and diphtheria have also increased in frequency during the present century. May not the increase in the frequency of these diseases have contributed to the decrease in the frequency of small-pox? The improved general sanitary condition of the large cities, such as London, when the present century is compared with the 18th, is believed to have had a marked effect in preventing the spread of, and reducing the mortality from, small-pox, and it cannot be doubted that the improvement in this regard, together with disinfection, isolation in hospital, and the greatly improved methods of treatment of cases of the disease, have contributed very largely to the reduction in the death-rate from it. We have the best of evidence, theoretical and practical, that outbreaks of the disease may be invariably stamped out at once, irrespective of vaccination, as I shall refer to more directly further on; and if all outbreaks were thus stamped out as they occur, we should soon be free from the disease, without this questionable practice. The fact that in spite of compulsory vaccination a most severe epidemic of small-pox prevailed in Great Britain in 1871, the percentage of deaths from which, compared with the total number of deaths from all causes, being, it appears, from a chart by that veteran Sanitarian, Dr. Guy, I think, nearly as high as that in the epidemics of last century, with the fact that the epidemic was soon checked, not by vaccination alone, certainly, but by isolation, quarantine and disinfection, affords evidence, that we may rely too much on vaccination as a prophylactic in small-pox.