Jenner in 1796 published his observations. It is needless to trace the effects this discovery has had in saving human lives, and in averting the disfigurements with which those who escaped death from the disease were almost invariably afflicted. It is probable that the full significance of his discovery was not revealed to Jenner himself, and on the other hand it is possible that he exercised self-restraint in not speculating as to the possible result that might accrue from his remarkable inquiries. Certain it is that the indirect results that have followed from Jenner's discovery that an attenuated virus was protective against contagion from the disease from which the virus was originally obtained have only recently been fully utilized. Probably several causes have been concerned in the want of continuity of progress in this direction, the most important of which has been the difficulty in isolating and handling the virus in many contagious diseases. The investigations into the full extent of the value of inoculation with attenuated virus and derivatives of bacteria have only been commenced in the last few decades, since bacteriology has been cultivated by Pasteur, Lister, Koch, Klein, Gaffkey, Martin, and others, and the whole subject with the aid of organic chemistry made a branch of exact science. Bacteria are now classified by their morphological qualities, by their reactions to staining reagents, by their modes of growth in various media, the temperature at which they grow and at which they are destroyed is determined, their need of oxygen ascertained, the parts of the body they make their habitat studied, the effects of their invasion in the tissues, and the protective powers of the organisms observed. The chemical products to which they give rise are isolated, their nature ascertained and their effects observed on the living body independently of that of the organisms by which they are formed. Finally the knowledge thus obtained is turned against the bacteria. The virus is attenuated by various methods, often by passing through the body of an animal immune to the disease, and its exact strength ascertained. It is then used for protective inoculations or for antidotal purposes in those already attacked by the disease from which the virus was originally obtained. Jenner's and the recent researches are equally scientific, observation, induction, experiment—but the differences in carrying out the inquiry on smallpox by Jenner and that of any specific disease due to an organized virus, at the present time, illustrate my theme of how the progress of medical science has been effected. Great as it has been and precise as a rule as are our methods of research, it is remarkable that up to the present time in two diseases in which protective and curative inoculations have been most conspicuously successful, namely,