

us by prophylaxis and isolation in these cases as well as by firmness in prevention of marriage in syphilitic patients.

Nature has provided the animal body with means of protecting itself, the micro-organism of disease are no doubt combated by some opposing force. Some antitoxine in the blood serum. An army of phagocytes, perhaps, or probably by agencies we know nothing of. The artificial induction of this resistance or in other words, the procuring of an induced immunity has opened to medical science the door of a well-filled store house. In 1898 Jenerer produced immunity against smallpox. In 1880, Pasteur did the same with chicken cholera. About the same time Pasteur and Koch showed that animals treated with an attenuated culture of the anthrax bacillus, Not only did not take the disease in its virulent forms but were afterwards immune to the disease. So progress has been made. Virulent organisms have been treated under conditions unfavorable to their growth and development, and cultures have thus been produced which render a protection against the disease. So it is possible to increase the antitoxic value of the blood in susceptible animals to a greater extent than that found in an acquired immunity. So were worked out our antitoxic serums which we, at least, may dare to hope may be of use as immunizers as well as healers. The great advantage of course of an immunity gained in this way is that the protection is immediate. The protective material being simply transferred from one animal to another. How long this protection can be made to last in the person receiving it, we cannot now say. Just what this protecting agent is we cannot say. Nature generates it, places it where it can be used, namely, in the blood. And thus may man by its use prevent what nature is making preparations to cure. The field widens before us. If an immunity can be acquired by a mother, what can she do to transmit it? Certainly she can transmit to her unborn child immunity against smallpox. Can that immunity be transmitted without actually giving the disease. In support of that theory I would point out that the tendency in specific diseases is to is diminution of their virulency. Is there in sight an antituberculine which will render mankind immune to this scourge. This wholesale production of a natural immunity can as yet give only the satisfaction we gain from castle building and that disinfection has done much and is doing much to prevent the spread of disease we all believe, but one cannot help wondering if a great deal of the benefit is not gained by the cleanliness necessarily produced rather than the destruction of the dreaded and much abused microbe. I think we have come to that point where we may consider if there has not been and is not still a great deal of most valuable energy wasted in the war against microbes, just because they are microbes. Is there a chance of their being our friends as often as our enemies. We wonder if the attempts of the surgeon of to-day will not furnish amusement to the surgeon of to-morrow as he scrubs and scalds and stains and soaks his own hands and the body of his patient in the vain attempt to free them from all these dreaded microbes. Are microbes as guilty as we believe in the causation of disease, or are they rather the result of disease, as Bantock has recently claimed. If so their removal will not prevent disease. The remarkable paragraph with which