

diseases could be greatly restricted, if, indeed, they could not be entirely wiped out. To this end Pasteur, Koch, Roux, Behring and others no less brilliant, turned their energies. Slowly but none the less surely did experiment after experiment, through years of patient labor lead to the crowning glory of modern medicine the laws of immunity, and the foundation of serum therapy. And these laws of immunity, and the treatment by serum therapy have been most successfully applied to diseases most fatal in their character, and hitherto, scarcely if at all amenable to the ordinary forms of therapeutics. I refer to such diseases as, Tetanus, Rabies, Plague, Diphtheria, Anthrax and Typhoid Fever. True immunity is conferred as we have mentioned by an attack of the disease in a form however modified. One attack of small-pox will confer immunity against a subsequent attack. Immunity may be conferred by the introduction into the system of a modified or attenuated virus of the disease. This was the principle adopted by Jenner in vaccination. It was also the form adopted by Pasteur in his treatment of anthrax, and in his treatment of the plague that affected the silk-worm in France. Immunity may be conferred by the use of toxins in small doses that is of the living and fully virulent organisms, a principle adopted by Roux in plague, and Hoffkine in cholera. To these forms of inoculation may be employed the term active. Passive immunity may be induced by the introduction of antitoxine serum, that is the serum from the blood of an animal already protected against the disease. And if the introduction of the serum of animals already immune to the disease can prevent that disease, the next step naturally to suggest itself would be, that this serum if introduced in large quantities would destroy or counteract the influence of this germ when established in the system, hence serum therapy had its origin. Behring was the first to apply this principle and with magnificent effect to the most loathsome and fatal of diseases, to diphtheria. The world little appreciates what a debt it owes to this great man. Behring step by step built up the law, that if an animal has been artificially protected against a disease its blood or serum acquired the power if injected in sufficient quantity into another animal of directly transmitting an immunity from that agent. In like manner did he establish the principle of serum therapy. Behring's discovery