

hoped-for remedy. The discovery of a specific microbe in cerebro-spinal meningitis, its mode of entrance by the nose and throat, and of the trial of repeated lumbar punctures and injections of diphtheria anti-toxin with uncertain results, are features of interest in this serious malady, which, by the way, is not as fatal as some suppose. The discoveries that typhoid and malaria infection were carried by flies were reviewed.

Of great interest bacteriologically was the discovery by Wright and Douglass of the substances in the blood fluids called opsonins, which prepared typhoid microbes for ingestion and digestion by the leucocytes, and that the serum acts upon the microbes. By the vaccine, prepared from cultures of the typhoid bacilli, sterilized by heating at 60 degrees centigrade for ten or fifteen minutes and injected internally, a modified immunity for two years at least was secured. This method had been tried on the British troops in India and South Africa, and commended by the Secretary of War after a careful study of results.

The clue to the cause of yellow fever and successful measures toward the eradication of malaria had followed the discovery by Major Donald Ross that malaria was conveyed by mosquitoes. The first proof that the stegomyia was the carrier of an infecting agent of yellow fever was given when Carroll, in July, 1900, offered himself for a test experiment. He had a narrow escape, but Lazear, of the American Commission, and Myers, of Liverpool, lost their lives. The labor and deaths of these men were not in vain, however, as was attested by the vigor and success with which the plague was stamped out and the exemption secured by Havana and other pest centres.

Preventive medicine as the result of this decade's work alone gave sure promise of saving more lives and sparing more misery than could universal peace. To give effect to its benign sway was worthy the highest ambition of the greatest statesman.

In commenting for a few moments on surgery, he said it was still the important question, when to operate. At the congress in Washington some years ago the physicians took a rather aggressive stand in regard to appendicitis, while the surgeons favored caution, but now the attitude was reversed. Manual deftness and operative dexterity were no longer a passport to fame. More than ever, possibly, surgeons must be much more than mere surgeons; they must study carefully the processes of disease and the effects of injuries. The elder Chiene of Edinburgh some years ago struck the keynote when he said his clinical laboratory was the first essential in his armamentarium. Surgeons now studied the blood and counted the white blood corpuscles to get the clue they required. Surgery is now invading, if possible, more vital