## THE SERUM TREATMENT OF CEREBROSPINAL MENINGITIS.

BY ALLEN M. BAINES, M.D., C.M.,
Associate Professor of Clinical Medicine and Pediatrics, University of Toronto.

The successful treatment of this dread disease has aroused more enthusiasm in the medical world than any other discovery, for so we may term it, that has been published, discussed and endorsed since that boon to the public, the antitoxin of diphtheria. To Dr. Simon Flexner of the Rockefeller Institute, New York, is due the gratitude of the medical profession and general public for introducing the antimeningitis serum.

Last year Dr. Flexner developed an animal serum, with which he treated monkeys afflicted with this disease. It was found curative, and in no case harmful. Further experimentation in human beings gave the same gratifying results. At the annual meeting of the Pediatric Society, held at Delaware Watergap, in May, the main topic of discussion was Dr. Flexner's paper, in which he reported results obtained from over three hundred patients coming from one end of the States to the other, and also a large number from Belfast, Ireland, and Edinburgh. In an editorial in the Archives of Pediatrics, from which we quote, Dr. Flexner states that the mode of action of the serum is mildly antitoxic and decidedly bacteriolytic, the serum having the effect of promoting the development of the meningicocci, and bringing about their disintegration. On account of this property of the serum, it must necessarily be brought into contact with the germs in a fair degree of concentration, and, therefore, it must be injected into the cerebro spinal canal after the cerebrospinai fluid has been withdrawn. It has little or no effect when injected elsewhere.

In the first place the serum is harmless. It has never been followed by injurious results. Secondly, it has produced a decided reduction in the mortality of the disease. The usual mortality in this disease is about 80 per cent. In cases treated by the serum the mortality is but 30 per cent., or under. This is a great contrast, for in the New York epidemic of 1904 there were 2.350 cases, with a mortality of over 75 per cent. Infants under one year all died. In Belfast, during the epidemic of this year, the general mortality of those treated outside hospitals and without serum was 80 per cent.; those treated by the serum in the hospital, under 26 per cent. In Akron, Ohio, there were nine cases treated without serum, one recovery; twelve cases with serum.