CEREBRO-SPINAL FEVER¹

By William Osler, M.D., F.R.S., Regius Professor of Medicine in the University of Oxford, Honorary Professor of Medicine in Johns Hopkins University, Baltimore.

I have been asked to speak to you on the subject of cerebrospinal fever, a disease in which I have been interested for some years, and of which I have had some experience. It possesses many most interesting characteristics as an epidemic. Let me call your attention to one or two peculiarities of infectious diseases in general. In the first place, a large proportion of them occur Nearly all the common epidemics have periods of in cycles. great prevalence, followed by intervals in which only a few cases occur. Certain of them, even the greatest, may disappear for very long periods. Had we not all thought that we had finished with the plague? Who would have thought ten or fifteen years ago that we should ever again think seriously of a great pestilence? Yet to-day there is no more important problem in epidemiology than the plague in India. The sweating sickness, that great epidemic which devastated Europe in the Middle Ages, has disappeared altogether. Then epidemics present curious seasonal variations of which we have as yet no very satisfactory explanation. For instance, enteric fever occurs chiefly in the autumn. The exact cause of these remarkable variations we do not know.

The particular disease I am to speak of, cerebro-spinal fever, illustrates in a remarkable way a number of epidemic peculiarities. It has occurred in remarkable periodic waves ever since its recognition, and its first description, in 1805, in periods usually of ten or fifteen years. The 1805 epidemic began in America, prevailed in Switzerland, and in one or two other parts of Europe, and lasted for eight or ten years. The second outbreak began in 1837, and became widely prevalent in parts of Europe and America. About 1850 there was a third definite epidemic wave, which was even more widespread, and which prevailed all through the period of the Civil War in America.

A fourth epidemic began in 1871, and about 1901 arose the fifth wave, on the crest of which we are at present. The disease has prevailed in many parts of America. In New York, for instance, in the past two years there have been nearly 4000 cases of this disease, with some 3000 deaths. There has been a severe

 $^{^{1}\,\}mathrm{An}$ Address delivered to the students in Edinburgh on Friday, February 8, 1907. Communicated by the author.