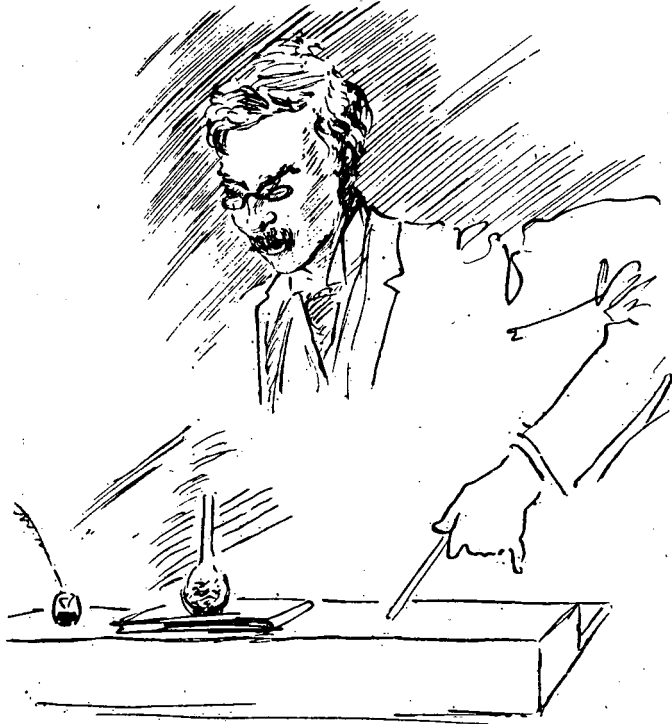


Editorial.**IN MEMORIAM.****SIR ALMROTH WRIGHT.**

By the death of Sir Almroth Wright at his home in Buckinghamshire on April 30, 1947, not only the Empire but the civilized world lost a man who, by his epic work in the science of Immunology, brought help of inestimable value to workers in the field of preventive medicine and saved the lives of many thousands.

The scale of his activities was wide and varied comprising studies on Typhoid, Anthrax, Tuberculosis, Pneumonia, Plague, Cholera, on Microscopy, Hæmorrhage, etc. The list of his scientific publications is legion. His "Technique of the Teat and Capillary Glass Tube" (written with the collaboration of Colebrook) is known to all laboratory workers, and there can be few medical officers who are not familiar with a Wright's capsule.



A. Cummins experiment

An original pen-and-ink sketch by S. Lyle Cummins who, at the time, was one of Almroth Wright's students in the Army Medical School at Netley.

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He had a long and close connexion with the Medical Services of the Army. On his return to this country in 1892 from Sydney at the age of 31 he took up the appointment of Professor of Pathology at the Army Medical School, Netley (the forerunner of the Royal Army Medical College, Millbank). Sir Almroth was the first to fill this appointment which he occupied till 1902. It was during this period 1892-1902 whilst Professor at Netley and whilst giving instruction to so many surgeons-on-probation in the Army Medical Service and Indian Medical Service, that he originated his epoch-making work on antityphoid vaccine.

Prior to his appointment at Netley, Sir Almroth had worked in the Medical Research Laboratories of the Royal College of Physicians and Surgeons, and had been Demonstrator of Pathology in the University of Cambridge. In the University of Sydney he filled the post of Professor of Physiology (1889-1892), one result of which was that in his new post at Netley he introduced into his lectures much stimulating physiological research work in addition to instruction in Tropical Diseases and Pathology. This work was new to most of the class and was one of the factors which made his lectures according to one of his pupils "by far the most interesting and popular of the course." At that time he was working on the coagulability of the blood, and he made all members of the class estimate their own coagulation time by his method of taking samples at intervals of half a minute or so to see how long they remained unclotted.

In 1892, Sir Almroth's first year at Netley, Haffkine visited the Army Medical School to demonstrate his method of inoculation against cholera by the injection of live cultures of the causative vibrio; the method of preparing the vaccine was later demonstrated to his class by Sir Almroth. This visit of Haffkine's must have played a large part in suggesting to Wright the practical possibilities of antityphoid immunization, as it was at this time that he started his intensive work on the dosage, strength and testing of antityphoid vaccines which led to his elucidation of the all-important fact that killed typhoid bacteria were active immunizing agents.

It was in the *British Medical Journal* of January 30, 1897, that he published, in collaboration with Surgeon Major Semple, Assistant Professor of Pathology at Netley, his article on vaccination against typhoid fever, and it was during the winter of 1897 to 1898 that he succeeded through the then D.M.S. India—Surgeon General Cleghorn—in obtaining a trial of his vaccine on British Army volunteers in India. Incidentally, at this time also, Sir Almroth invited the A.M.S. and I.M.S. officers who were first in the class to have the privilege of being inoculated in order to ascertain the correct dose. Both officers consented and were duly inoculated, and both had, what is described by one of the subjects, as a "bad reaction," being laid up for twenty-four hours and two days respectively, but they loyally assured Sir Almroth that they were "doing well."

His work on antityphoid vaccine was viewed askance by his contemporaries at the time and, it must be admitted, by other members of the staff who considered this experimentation on surgeons on probation as rather terrible and, according to one of the two subjected to trial, were rather hopeful that the two

subjects might demonstrate Wright's "wrongdoing" by being very ill indeed; fortunately, this was not the case.

Leishman was attached to Wright's laboratory on his return from India in 1897 and by degrees became more and more engrossed in the work going on at the time, including that on the new typhoid vaccine, but it was not until 1900 that Wright published in collaboration with him an article in the *British Medical Journal* on the results obtained and methods employed in making the vaccine.

Wright was essentially a practical man and much of his work and many of his scientific publications were concerned with methods and techniques, e.g. on the technique of serum diagnosis and on the estimation of the bactericidal power of the blood, etc. He believed in the words of Pasteur, which he quoted in the preface to one of his works "Come away from these polemical discussions . . . come and be taught methods," and no one was better qualified to do so that he was.

Sir Almroth's departure from the Army Medical School in 1902 to his appointment as Pathologist to St. Mary's Hospital, where he founded what was later to become the Institute of Pathology and Research, did not mean the complete severance of his connexion with the Army Medical Service, as he was a Consultant Physician to the British Forces during the First World War and a valued member of the committee on antityphoid vaccine up to 1938.

The mass of statistical evidence which has accumulated in support of his work on antityphoid vaccine is so great and incontrovertible that repetition may seem redundant, but the comparative figures for the South African and First World War are of continued interest and are given once more.

RESULTS OF ANTITYPHOID INOCULATION.

SOUTH AFRICAN WAR			FIRST WORLD WAR		
<i>Before introduction of inoculation</i>			<i>After introduction of Inoculation</i>		
Average strength of Force 1899-1902	No. of cases of enteric fever	No. of deaths from enteric fever	Average strength of Force 1914-18	No. of cases of enteric fever	No. of deaths from enteric fever
208,266	57,684	8,022	1,235,644	7,423	266

If antityphoid inoculation had not been introduced, it is doubtful whether, in two world wars, it would have been possible to maintain enormous and closely concentrated armies in the field without a disastrous epidemic.

In paying our major tribute to the work on antityphoid immunization it is not that we forget Sir Almroth Wright's activities in other fields but that this work was of paramount importance to the Services, that it originated during his time at Netley, and has been a continuing inspiration since that time.

But Wright did more for the Army. Who can doubt that the impact of his personality on the young men embarking on a Service career did much to determine the course of many of them in scientific medicine? Amongst those who came under his influence at Netley between 1892 and 1902 were Harrison, Lyle Cummings, Birt, Leonard Rogers, Semple, Leishman, Firth and many others.

And now we say farewell to one who laid the foundation of the teaching and practice of pathology in the Army well and truly so that there was raised a Service whose performance in two great wars has been of incalculable benefit.