

## Obituary.

PROF. ADRIAN STOKES.

THE death of Dr. Adrian Stokes, Sir William Dunn professor of pathology at Guy's Hospital Medical School, University of London, has robbed pathology, and therefore medicine, of one who, though he had already accomplished much, had not yet reached the height of his powers, and his loss, at the early age of forty, is the more poignant because of the tragic circumstances which surround it.

Adrian Stokes was the youngest son of Mr. Henry John Stokes, and was born at Lausanne in 1887. There was a strong medical tradition in the family, for many of his forbears had left names to conjure with in Irish medicine. At Trinity College, Dublin, where he graduated in 1910, he early gave promise of brilliance, for he not only gained numerous academic distinctions, but he was also a keen athlete and was a worthy member of one of the strongest cricket elevens that has represented his Alma Mater.

After doing the usual house appointments, Stokes spent eight months at the Rockefeller Institute in New York, and then returned to Dublin where he joined the staff of Prof. O'Sullivan. Henceforth he devoted himself whole-heartedly to the study of pathology and bacteriology, and he had become an expert in laboratory technique when the War broke out in 1914. He at once obtained a commission in the R.A.M.C. and served in France throughout the War. Although actually attached to a casualty clearing station as a specialist in pathology and bacteriology, Stokes took the broadest view of his duties and responsibilities. He equipped his motor cycle and sidecar with an incubator, setting up what was in effect the first mobile laboratory in France, and his work did much to restrict the incidence of typhoid fever in the early days of the War.

Of the original work which Stokes carried out during this time, his investigations into the cause and mode of transmission of spirochætal jaundice was probably the most important. He identified the spirochæte and demonstrated its presence in the bodies and urine of trench rats, a discovery which led to the suppression of what might have become a very serious epidemic. But it was not only in his own particular branch that Stokes did brilliant work. He was the inspiration of the mess in which he lived. Full of energy and ingenuity, he not only lent a hand wherever one was required, but also he tackled the problems of others and applied his knowledge of laboratory technique to solving their difficulties. He kept himself up to date in the various new methods of treatment and, as soon as he was convinced of their superiority, he never rested until they had been adopted in his immediate vicinity. 'Brass hats' were to him the means of obtaining what he felt was necessary for the good of the sick, gassed and wounded, and his vehement, but clear and cogent, demands for apparatus, drugs, etc., were very rarely unsuccessful. All this he effected while maintaining his own

special department at the height of efficiency. Those who served with him aver that he did more than any other single individual to improve the medical treatment of the troops and to diminish wastage.

On demobilisation in 1919, Stokes was appointed to the chair of bacteriology and preventive medicine at Trinity College, Dublin, but in 1920 he was invited by the Rockefeller Foundation, who had been greatly impressed by his work on spirochætal jaundice already mentioned, to join the West African Yellow Fever Commission. It happened that during his visit to Africa very few cases of yellow fever occurred, and his work was necessarily indeterminate.

In 1922, Stokes was appointed to the Sir William Dunn chair of pathology at Guy's Hospital Medical School in the University of London, which he occupied at the time of his death. He did much to improve the status of pathology in the School, and he was tireless in his efforts to arouse interest and to stimulate research. Intensely practical in his teaching, he succeeded in attracting brilliant students, and, given the time, he would have created a school of pathologists keen to tackle problems whose solutions might lead to advances in medicine.

In April of this year Dr. Beeuwkes, the head of the Rockefeller West African Yellow Fever Commission, asked for Stokes's help, for the problem of yellow fever in West Africa was little nearer solution than it had been in 1920. Indeed, it was still uncertain whether it was identical with the yellow fever of South America. The latter disease is carried by *Stegomyia fasciata*, the common domestic mosquito, and Noguchi has described a leptospira as the causative organism. Stokes obtained leave of absence from Guy's for six months and sailed for Lagos in May. He was not particularly hopeful of succeeding where others had failed, and his first letters spoke of negative results. In July the outlook was brighter, and in the middle of August he wrote that he had succeeded in transmitting the disease from the human patient to monkeys, both by blood infection and through the medium of mosquitoes. No leptospiræ had been found, and he was satisfied that the cause had not yet been isolated. He was then engaged in the microscopical examination of infected mosquitoes in serial section. "It is infuriating to know that one has the virus under one's eyes and cannot see it," he wrote at that time.

Then on Sept. 16 came a cable to say that Stokes was seriously ill. He was removed that day to the European Hospital, where he died of yellow fever on Sept. 19. How he contracted the disease is not yet certain, but it would appear highly probable that he infected himself accidentally in his laboratory. Time alone can show the value of his work on the disease to which he fell a victim; but if, as appears certain, he has helped materially towards the discovery of the cause of yellow fever in West Africa, he would not have counted the cost.

In Stokes's public and private life, transparent honesty and sincerity irradiated his every word and every action; outspoken and candid, he never left any doubt as to his meaning and 'to beat about the bush' was foreign to his nature. His energy and his capacity for work were amazing, and all the more so when one remembers that his greatest enemy was insomnia, and that for him five hours was an unusually good night's sleep. As a teacher, he preached the gospel of scientific truth with an earnestness born of conviction. His students absorbed from him the right critical attitude towards their work, and the best of them became infected with his own zeal for research. He was generous to a fault, and many a lame dog was helped over a stile without ever knowing whence his help had come. An Irishman by everything but the accident of his birthplace, he loved his country as deeply as he hated those whom he regarded as being responsible for her unhappy state, which was a source of real grief to him.

Stokes died in harness, as he would have wished to die, but his premature death will be widely

mourned by all who are interested in the advancement of medical knowledge, and especially by those who were privileged to come into intimate contact with a personality so vigorous, so stimulating, and so kindly. T. B. J.

We regret to announce the following deaths:

Prof. Svante August Arrhenius, For. Mem. R.S., of the Nobel Institute, Stockholm, from which he received the Nobel prize for physics for 1903, on Oct. 2, aged sixty-eight years.

Prof. Willem Einthoven, For. Mem. R.S., professor of physiology in the University of Leyden, and Nobel laureate for physiology for 1924, on Sept. 28, aged sixty-seven years.

Dr. George Andrews Hill, senior astronomer at the U.S. Naval Observatory, Washington, on Aug. 29, aged sixty-nine years.

Prof. A. Liversidge, F.R.S., emeritus professor of chemistry in the University of Sydney, on Sept. 26, aged seventy-nine years.

Dr. H. D. Thompson, for more than thirty years professor of mathematics at Princeton University, who was known for his work on hyperelliptic functions and on geometry, aged sixty-three years.

### News and Views.

THE annual general meeting of the Australian National Research Council was held in Melbourne on Aug. 25-26. Particular attention was given to the financial position of the Council in relation to present and future work. The offer of the Carnegie Corporation to provide a sum of £5000 as the nucleus of a research fund was accepted with most cordial thanks, and with this sum and more than £1000 available from other sources, such a fund was formally instituted. A strong committee was appointed to take action for securing additional contributions from Australian sources, and it is hoped that before long the Council will be in a position to give considerable aid to Australian workers in pure science. Amongst several satisfactory reports on the year's work was one from the Anthropology Committee outlining the progress made since the initiation of the Department of Anthropology in the University of Sydney. This step followed upon a resolution by the second Pan Pacific Science Congress of 1923 and was made possible by contributions from the Commonwealth and State Governments and the Rockefeller Foundation. The new Department is now in full swing and is taking active steps to organise investigations both on the mainland and on the neighbouring Pacific islands. The following new members were elected to the Australian National Research Council, the total membership of which may not at any time exceed 100: Mr. C. R. P. Andrews (Director of Education, Western Australia); Prof. A. R. Radcliffe Brown (Anthropology, University of Sydney); Prof. A. N. S. H. Burkitt (Anatomy, Sydney); Prof. A. J. Ewart (Botany, Melbourne); Dr. W. A. Hargreaves (Government Chemist, South Australia); Prof. J. W. Paterson, (Agriculture, Perth); and Dr. H. R. Seddon (Veterinary Research Station, New South Wales).

THE Trustees of the Commonwealth Science and Industry Endowment Fund in Australia are this year

making £1250 available in small grants for the assistance of scientific workers in Australia. The lines which will be followed in making the grants will be similar to those which have been proved to be satisfactory by the Department of Scientific and Industrial Research in Great Britain. The Commonwealth Fund has an invested capital of £100,000, and it is provided by Act of Parliament that the interest from it shall be employed for the dual purposes of training students in the methods of scientific research and in providing assistance to persons engaged in research, irrespective of whether their work has an obvious practical application or not. At present, the income is being devoted mainly to the first object, but as time goes on it is expected that an increasing sum will be available annually for distribution in grants.

PROF. J. A. PRESCOTT, professor of agricultural chemistry at the Waite Institute, University of Adelaide, has been appointed adviser on soils problems to the Commonwealth Council for Scientific and Industrial Research. Prof. B. T. Dickson, of Macdonald College, Quebec, has been appointed chief mycologist to the Council and will take up his duties in Australia towards the end of the year.

THE interest in the relationship between science and religion, which was revived by Sir Arthur Keith's address to the British Association on the descent of man, has been further stimulated by the sermon preached by the Bishop of Birmingham in Westminster Abbey on Sept. 25, and the opinions of eminent divines thereon which have been collected by the *Morning Post*. As a further reaction, the Sociological Society, aiming at resolving the conflict in a higher synthesis, has arranged a series of addresses expounding the 'sociological approach' to religion in which a 'higher' science, accepting the data of a 'lower,' will deal with the religious process as a striving after a purpose which renews itself from