there is any danger of substantial loss of rings through predation, isotopes with a short half-life are obviously preferable. It is extremely unlikely, however, that predators will be affected when metal rings are used, as these are either rejected, regurgitated, or passed with the fæces. Nevertheless, the choice of a study area should take into account not only the range of the species being labelled, but also that of any possible predator. In the present work on moles, most of the rings have now been removed from the animals, which have shown no signs of ill-health.

A drawback of the technique is that it is impossible to distinguish between labelled individuals with overlapping ranges. Although this limits its use, there are many important population problems, which by their nature can only be studied at the individual level, and for these it promises to be of valuable application.

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OBITUARIES

Dr. Philip Eggleton

By the death of Dr. Philip Eggleton on October 7 at the early age of fifty-two, medical science has lost one of its most versatile and original minds and the University of Edinburgh one of its most stimulating and popular teachers.

Eggleton received his undergraduate and post-graduate education at University College, London. After graduating with honours in chemistry in 1922, he joined the Department of Physiology and Biochemistry, where he studied for two years under Prof. E. H. Starling, Sir William Bayliss and Sir (then Prof.) Jack Drummond. In 1925, following a brief experience in industry, Eggleton returned to University College with a grant from the Medical Research Council to work on certain of the chemical aspects of muscular contraction under the direction of Prof. A. V. Hill. The following year he was awarded a Beit Memorial Fellowship to continue his work in this field.

During this period, Eggleton (with Grace P. Eggleton) carried out his now classical work on the phosphorus compounds in muscle, which culminated in the almost simultaneous discovery by Fiske and SubbaRow and by himself of creatine phosphate (phosphagen) and in the recognition of the importance of the latter in the chemistry of the contractile process. The part played by Eggleton in what has been termed "The Revolution in Muscle Physiology" (A. V. Hill) was a most distinguished one, and it was fitting that in 1931 he was awarded the Julius Mickle Fellowship by the University of London for the most outstanding research in medical science carried out in the University during the preceding five years.

In 1930 Eggleton went to Edinburgh as lecturer in biochemistry in the Department of Physiology, and in this capacity and as senior lecturer and reader served the University under no fewer than four professors of physiology. On three separate occasions he was acting-head of the Physiology Department for long periods. At Edinburgh, Eggleton developed his great potentialities as a teacher to the full, and soon became one of the most lucid and stimulating lecturers in the University. He also developed a remarkable facility for explaining scientific matters to the layman in vivid and readily understandable language; and, since he was convinced of the value of some knowledge of the aims and methods of science in the general education of everyone, it was natural for him to become actively interested in the popularization of science. In collaboration with Prof. W. O. Kermack, he wrote an excellent popular book, "The Stuff We Are Made Of", and for many years he acted as adviser to the B.B.C. in Scotland on scientific broadcasts. His own broadcast talks were models of what such talks should be.

An important part of Eggleton's duties at Edinburgh consisted in giving help and advice on many different chemical matters to his colleagues in the Physiology Department. Because of this, and also possibly because of his own inclinations, his interests in biochemistry and in science generally broadened very considerably. He extended his knowledge of mathematics, and latterly became interested in rheological problems in biology. Possibly his own career as a creative scientist might have been more spectacularly successful had he been less catholic in his interests and had he been less unselfish in his attitude to his colleagues. However, those who were closest to him know that he was always happiest when helping others.

During the Second World War, Eggleton collaborated in research in the Physiology Department under the direction of Prof. I. de B. Daly on phosgene poisoning on behalf of the Ministry of Supply, and on decompression problems on behalf of the Air Ministry. He joined the Edinburgh Gas Identification Service (Civil Defence) and became deputy district gas adviser for South-East Scotland.

Eggleton was a member of the Physiological Society, the Biochemical Society and the Society for Experimental Biology. He served on the committees of all three bodies. He was also a member of the Joint Committee on Rheology of the International Council of Scientific Unions, and he organized the First International Colloquium on Physiological Problems in Biology, which was held in Sweden in 1950.

G. F. Marrian

Dr. G. P. Douglas, O.B.E.

The death of Dr. G. P. Douglas on October 16 at his home at Camberley will be regretted by a wide circle of friends.

Born in 1892, he was educated at George Watson's College, Edinburgh, and graduated in 1914 from the University of Edinburgh with distinction in engineering. He served in the First World War and was awarded the M.C.; in July 1916 he was wounded, suffering the loss of his leg. In December of that year he joined the Royal Aircraft Factory (now Establishment), where he was concerned in the building and running of the 7-ft. wind tunnels which were to supplement the single 4-ft. tunnel that was then the sole equipment. In 1918 he became engineer in charge of the wind tunnels, and played a formative part in the development of model work at the Establishment. He had a genius for using simple means, lucidity as to the range of validity of these means, and a keen appreciation of the need for flexibility in

method. During this period the 5-ft. and 24-ft. tunnels came into use.

In 1934 he became head of the Aerodynamics Department, of which the model work was one section. He played a big part in building up a strong department, more elaborate equipment, and enlarged field of work called for by the Second World War.

Dr. Douglas served on the council of the Royal Aeronautical Society during 1946–51, and for many years on the Aerodynamics Committee of the Aeronautical Research Council. He extended his contacts by attending the main international congresses on aerodynamics. He retired in March 1953. Though he would never allow the handicap of his lameness to keep him from clambering about aircraft, balloon shed roofs, ships, or anywhere else where his work lay, he had to pay for the effort involved by sacrificing many other activities. By the time of his retirement, he was over-strained by his unremitting devotion to duty.

To many of us, Dr. Douglas's greatest achievement lay in his personal influence in shaping the Department. He was honest to the core, humble as to his own attainments, and whole-heartedly pleased at the advance and achievement of the many distinguished people who served under him for various periods as young men. Under three ministries, he maintained to a very high measure the Aerodynamics Department as a place where scientists could grow up and develop their own type of ability, with the minimum of restrictive organization. F. B. BRADFIELD

Mr. Fred Lincoln

FRED LINCOLN, who has just died at the age of seventy-seven, must have been by far the most widely known laboratory assistant in the world. Almost all the leading physicists in the Commonwealth and many in other countries have worked in the Cavendish Laboratory at one time or another, and to all of them Lincoln was one of its main institutions. He joined the staff as a laboratory boy in 1893, and when I was a student Lincoln had already been the head assistant for many years. When I returned to Cambridge thirty years later as Cavendish professor, there was Lincoln in the same position and quite unchanged in appearance and energy. His fierce eye and even fiercer moustache still induced a very proper respect in the young research worker applying to him for apparatus or stores, and the kindness, humour and loyalty to the Laboratory, which had earned our admiration and affection, were the same as ever. When a presentation was made to him on the occasion of his retirement, contributions came from physicists all over the world, who will now be sad at the passing of a great figure and a warm friend. W. L. BRAGG

NEWS and VIEWS

Royal Society : Award of Royal Medals

H.M. THE QUEEN has been graciously pleased to approve recommendations made by the Council of the Royal Society for the award of the two Royal Medals for the current year as follows: Sir John Cockcroft, director of the Atomic Energy Research Establishment, Harwell, for his distinguished work on nuclear and atomic physics; Prof. H. A. Krebs, Whitley professor of biochemistry in the University of Oxford, for his distinguished contributions to biochemistry.

Chemistry at Aberdeen : Dr. G. M. Burnett

DR. G. M. BURNETT, at present lecturer in chemistry in the University of Birmingham, has been appointed to the chair of chemistry in the University of Aberdeen at the early age of thirty-three. Dr. Burnett succeeds Prof. R. M. Barrer, who has gone to the Imperial College of Science and Technology, London (see *Nature*, July 31, p. 205). Educated at Robert Gordon's College, Aberdeen, he graduated with first-class honours in chemistry at Aberdeen in 1943. Owing to war-time requirements, he became an assistant in the Physics Department at Aberdeen, with special responsibility for dealing with the supplies of radium for the hospitals in the north-east of Scotland. In his meagre spare time at that period, he started research on the problem of determining the absolute rate constants and radical concentration in liquid-phase free-radical polymerization reactions. He very quickly succeeded in obtaining an exact solution to this problem, and was in fact the first to do so. The extension and exploitation of this work have been his main preoccupation during his stay in Aberdeen and, since 1948, in Birmingham. Dr. Burnett has written many papers covering all aspects of this field, and these have culminated in the publication of a book on polymer reactions, which forms a landmark in describing and reviewing critically this important branch of polymer chemistry and reaction kinetics.

Pure Mathematics at Birmingham : Prof. C. A. Rogers

DR. C. A. ROGERS has been elected to the Mason professorship of pure mathematics in the University of Birmingham in succession to Prof. R. A. Rankin, who has gone to Glasgow (see *Nature*, April 3, p. 615). Dr. Rogers, who is thirty-three, graduated at University College, London, in 1941, and after war service in the Applied Ballistics Department (Ministry of Supply) returned to that College as a research student in 1945. He was appointed assistant lecturer in 1946 and lecturer in 1949. The title of reader in mathematics was conferred on him in 1953. Dr. Rogers was awarded a Commonwealth Fund Fellowship in 1949 and spent the session 1949–50 at the Institute for Advanced Study, Princeton. Dr. Rogers has published some forty papers, many of which are substantial memoirs. Most of his work has been on the theory of numbers, and in particular on the geometry of numbers. In 1947 he gave a new and simple proof (*Ann. Math.*, **48**, 367; 1947) of the theorem of Minkowski and Hlawka, and this has proved to be the starting-point for much later work by himself and others. In a memoir published in *Acta Math.*, **82**, 185 (1950), he applied to the geometry of numbers a new inequality obtained by solving an integral equation. Jointly with A. Dvoretzky he has solved an outstanding problem in the theory of Banach spaces (*Proc. U.S. Nat. Acad. Sci.*, **36**, 192; 1950). Dr. Rogers's work has given him an international reputation as a pure mathematician, and he is also well known to many for his work in statistics and for his wide interests in science generally.