(1940–41), of the Prehistoric Society (1936), and was successively general secretary (1931–35) and general treasurer (1935–43) of the British Association, besides being president of Section C (Geology) in 1932. Other honours included the Bigsby Medal of the Geological Society of London (1928), election to the Royal Society (1931), and honorary membership of many scientific societies at home and abroad; he was made O.B.E. in 1918. He will be remembered with affection and esteem by all his former colleagues and by generations of students, not least by those he inspired at Liverpool during the hey-day of his career.

DAVID WILLIAMS

Prof. E. T. Bell

E. T. BELL, who died in 1960, was born at Aberdeen in 1883. His schooldays were spent in Great Britain, but he attended university in the United States, where he spent the whole of his adult life. He occupied a number of university posts, culminating in his tenure of the chair of mathematics at the California Institute of Technology, Pasadena, 1927–53.

As a schoolboy, Bell came under a mathematical teacher of rare distinction, E. M. Langley, of Bedford, and on Langley's death wrote with warm appreciation of being shown something of the mode and content of modern mathematics by an inspiring teacher, and in particular of being introduced at school to the theory of numbers and to elliptic functions. His research work was mainly in these fields, and he made significant contributions to the classical theory of numbers, the field of rational arithmetic and of Diophantine analysis.

Bell's name, however, was well known outside the restricted circle of professional mathematicians, by

the series of books, from about 1930 onwards, in which he endeavoured, with substantial success, to explain modern mathematics to the intelligent layman. Of these books, three deserve special mention. In *Mathematics, Queen and Servant of Science* (1952), a conflation of two earlier volumes, he described the dual nature of mathematics, its remoteness from prevalent crude materialism and its extraordinary knack of becoming vitally relevant to material concerns. If there are two cultures, mathematics, belonging to both, is the essential bridge between them. *Men of Mathematics* (1937) relates the outstanding mathematical discoveries of the ages to the men who made them; sufficient personal detail is given to allow the reader to see mathematicians as human beings, but emphasis throughout is on their contributions to mathematics. Something of the same theme runs through *The Development of Mathematics* (1940), which is not an encyclopaedic history of the subject, but a narrative of carefully chosen main trends, themselves presented through typical major episodes; it is a graphic map of the main roads, and omission of byways and dead ends is deliberate and justifiable. Even so, the amount of information and opinion packed into 550 pages is extraordinary.

Bell's facts are almost always sound, his style is clear and exuberant, his opinions, whether we agree with them or not, are expressed forcefully, often with humour and a little gentle malice. He was no uncritical hero-worshipper, being as quick to mark the opportunity lost as the ground gained, so that from his books we get a vision of mathematics as a high activity of the questing human mind, often fallible, but always pressing on in the never-ending search for mathematical truth.

T. A. A. BROADBENT

NEWS and VIEWS

Royal Geographical Society:

Medals and Awards

H.M. THE QUEEN has approved the award of the Royal Medals for 1961 of the Royal Geographical Society as follows. *Patron's Medal*: Mikhail M. Somov, deputy director, Arctic and Antarctic Research Institute, Leningrad, for polar exploration and research; *Founder's Medal*: John Bartholomew, editor, *The Times Atlas of the World*, for contributions to cartography.

The Council of the Royal Geographical Society has made the following awards. *Victoria Medal*: Prof. W. William-Olsson, Stockholm School of Economics, for contributions to economic geography; *Murchison Grant*: Prof. K. M. Buchanan, University College, Wellington, New Zealand, for contributions to economic geography; *Back Grant*: Eric H. Brown, University College, London, for geomorphological research; *Cuthbert Peek Grant*: Martin W. Holdgate, Scott Polar Research Institute, Cambridge, and leader of the Royal Society's Expedition to southern Chile; *Gill Memorial*: Cuchlaine A. M. King, University of Nottingham, for glaciological and coastal research; *Mrs. Patrick Ness Award*: R. M. L. Mason and A. R. Hanbury-Tenison, for their trans-continental exploratory journey in South America.

Statistics at Birkbeck College, London:

Prof. D. R. Cox

THE establishment of a chair in statistics at Birkbeck College, University of London, marks the fulfilment of a scheme the authorities have had in mind for some few years of establishing statistics at the College. Birkbeck College is a college of the University of London reserved for students who are in full-time occupation, so that the majority of the students attend only in the evening. In the past, the object of the College was to provide a university education for students who, for financial or other reasons, were unable to secure this in the normal way; but the development of university education in Britain has introduced many new elements. It is now much easier for a student to secure full-time education; on the other hand, there is now a need for many more men with qualifications in two allied subjects, and the College is finding that more and more of its students are fitting into this class. In particular, there are many who have taken degrees in mathematics who wish to obtain a qualification in statistics, and in developing this new department, the College has the needs of these students particularly before it. The department will provide courses for postgraduate and undergraduate students.