JOHN WILLIAMSON

1901-1949

JOHN WILLIAMSON, whose father was Minister at Kinross, graduated at the University of Edinburgh with First Class Honours in 1922, and proceeded thence to a lectureship in the University of St Andrews. His ability in algebra soon bore fruit in research and led to the award of a Commonwealth Fellowship in 1925, in the opening year of that notable post-graduate enterprise. He chose Chicago as the place of study and he worked under L. E. Dickson and E. H. Moore, returning to St Andrews after two years with an enthusiasm not only for his earlier algebraical interests, in matrices and the theory of invariants, but also for abstract linear algebras. He brought back to Scotland the fruits of what Wedderburn had taken to America which had inspired Dickson and formed the central theme of his lecture course at Chicago. Williamson was probably the first to lecture in Scotland (1927) upon algebras and their arithmetics: his interest in this led to original contributions in the region of division algebras. Instead of remaining in the Homeland and perhaps anticipating the present-day interest to be found here in abstract algebra, he accepted a call to a lectureship at Johns Hopkins University, Baltimore, and settled permanently in the United States, with occasional visits to Scotland. His early death in 1949, due to heart failure as he was returning from church one Sunday evening, has taken away one who came to be regarded in America as a leading exponent of the theory of matrices. Throughout his life he was devoted to teaching and mathematical research, producing an impressive stream of papers, on invariants, algebras and matrices. The general trend in this programme was to pass from the ordinary field of complex numbers to more restricted and specialised fields.

In Scotland we remember him as a cheerful and generous colleague, an admirable lecturer and a welcome collaborator in research: to his work he brought perseverance, thoroughness and care as the background to results of considerable merit and originality. I was fortunate to find him willing to write several joint papers, any defects or errors in which were certainly not due to him. His own paper, "A Prepared System for two Quadratics in six Variables" (*American Journal of Mathematics* 53 1931)) is typical of his work in a difficult field: and its accurate findings gave the clue which led to a new method of testing invariants for irreducibility, that of Hereditary Matrices (*Proc. London Math.*

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Soc. (2) 42 (1936)). It was Williamson who found a subtle flaw in the existing theory of Hermitian Forms as expounded in research papers and stated in several textbooks including *Canonical Matrices*. This he put right by bringing such forms into line with the signature test that is essential for real quadratic forms : but he generously gave the problem over to his pupil, the late G. Richard Trott, who published the solution in his dissertation for a doctorate. This typical act of his was mentioned to me with appreciation at the 1950 Mathematical Congress by another of his pupils. It was clear that both Williamson and his wife (Lydia Stevenson, who had been a student at St Andrews) had endeared themselves to colleagues and to students in America.

H. W. TURNBULL.

JOHN G. B. MEIKLEJOHN

1872-1951

J. B. MEIKLEJOHN, who died suddenly on 19th January 1951, in his 79th year, was for 52 years a member of the Edinburgh Mathematical Society. He was born on a farm near Thurso and went to school at the Miller Institution, where he later became a pupil teacher. In 1892, after winning a First Class Queen's Scholarship and the Rhind Bursary, he proceeded to Edinburgh University to read Classics. In his second year, however, he was medallist in Professor Chrystal's Junior Class and from then onwards devoted himself to Mathematics.

On graduating M.A., with first class honours, in 1898, he was appointed Assistant Master at Dundee High School. In 1902 he was promoted to be Head of the Department, and he served in this capacity until his retirement in 1938; soon after this he was elected a member of the Board of Directors.

As a teacher he was supreme. Sir Edmund Whittaker once told the present writer that he was the best teacher of Mathematics in the East of Scotland. If there were any doubts as to his rapid promotion to the headship after only four years of teaching, these were soon dispelled, for three years later there began an almost unbroken sequence of highly-placed John Welsh Mathematical Bursars at his old University. His outstanding success as a teacher depended on three things—(1) he