OBITUARY

J. T. COMBRIDGE

John Theodore Combridge, whose death at the age of 89 occurred in December 1986, was a member of the Society for almost sixty years, but his good influences in mathematics were spread much more widely.

After school at Brighton College he served in the Royal Field Artillery in the first world war, and then went up to St John's College, Cambridge. In that time of great excitement over mathematical physics Combridge was particularly fascinated by general relativity and his association with Eddington continued by letter until 1936. In 1923 we find Eddington explaining subtleties in Hamiltonian differentiation to his erstwhile pupil, but by 1932 there is a more interesting reply from Eddington about a suitable model for an electron in general relativity, about compressed matter in stars and the inevitability of collapse to a white dwarf, a disclaimer 'there is not much I can add to §72' – a reference to the problem of the homogeneous sphere in general relativity – together with 'Quantum theory is scarcely advanced enough to throw light on this point'. Combridge had left Cambridge for London in 1922 to read for a higher degree under G. B. Jeffrey. He received the M.Sc. with distinction in 1924 and was a 'demonstrator' at the Royal College of Science (in the company of George Temple) till his appointment as assistant lecturer at King's College, London in 1926, so beginning forty years of service to the college which later described him, with justice, as 'one of the most devoted and loyal members of staff it has ever had the privilege to have'. Christmas of that year saw his marriage to Norah Charlwood, and their children were born in 1928, 1929 and 1932. This happy marriage was terminated by Norah's death in 1967.

The years 1923–29 were exceptionally difficult ones for the Mathematics Department at King's, with junior members working very hard at a heavy load of service teaching. Amongst other colleagues Combridge found James Henderson (later Academic Registrar of the University) who describes him as 'a real asset: a good lecturer and tutor and with a real flair for administration and organisation'. He was promoted to lecturer in 1929 and remained in the department till 1937, serving on the Delegacy of the College from 1933 to 1936. Before 1934 research activity in the department was spasmodic and only the senior members had time to spare for it. But Combridge determined from the beginning to pursue a scholarly course of action and read deeply in the literature of general relativity. This reading had two outcomes. Firstly, there are three bound volumes, entitled 'Notes on Relativity' which he presented to the college archives. They contain his very careful notes, abstracts and reviews, usually of about two quarto pages, of one hundred published papers on relativity and supporting parts of pure mathematics. Ninety of these constitute an extensive survey of the important literature with papers each year from 1921 to 1936, with a peak in numbers between 1930 and 1933. Secondly, he compiled a more extensive bibliography of some 1,700 titles of papers in general relativity over the same period in the form of a card index, with pithy comments. Once a little more time

was available for research he began to contribute to the subject of his long paper [1] shows someone with a complete grasp of general relativity, applying the results gained to three different metrics (with considerable heavy calculation).

The following year saw more correspondence with Eddington about the effect in general relativity of the rotation of the sun on the planetary orbits. Eddington offered to communicate a paper on this to the Monthly Notices of the Royal Astronomical Society, but it was never written, for in 1937 the post of Assistant Secretary of the college was offered to Combridge. One can only speculate on his reasons for accepting it. It is certain that he felt confident that he would succeed Shovelton as Secretary, a post which the divided constitution of the King's of the time made particularly important, since the Principal had no jurisdiction over the Theological Faculty and the Dean none outside it, leaving the Secretary as the critical link. Financial considerations were perhaps not wholly absent but much more important was undoubtedly his loyalty to the college and the feeling that he could do the job well. And he entertained hopes 'of being able to keep up my mathematical reading'. No sooner had he begun, with characteristic thoroughness, to learn his new job than he had to prepare plans for the college departments to be evacuated to Bristol and Birmingham in the event of war, and then to implement these plans. As he says, 'The card index was put aside and left'. It is pleasant to record that a lightly edited version of this card index was published in book form by the college in 1965, mainly through the energies of F. A. E. Pirani [2]. One thousand copies were printed, but they are now hard to come by.

In the event Combridge was disappointed (twice) over the Secretary's post but this was never allowed to affect for a moment his loyalty to the college or his energetic service. In 1947 he was appointed to the newly-created post of Registrar, which he held till his retirement in 1962. The divided constitution meant that many of the duties that would, in another college, have been those of a registrar were borne by the Secretary and this fact proved of importance for Combridge's wider influence in British mathematics. Two papers [3, 4] already showed in 1937 his interest in the problems of teaching mathematics at school level, and he had joined the Mathematical Association in 1930. He was now much more able to help the Association. He was chairman of the important Teaching Committee from 1950 to 1956, an exceptionally active President in 1961–62 and later an Honorary Life Member and Trustee. In 1971 he drafted a very scholarly history of the Association. His work with the Association also introduced him to his second wife, Winifred Cooke, who predeceased him by a few months. His major contributions to mathematical life came during and after his Presidency. His own views can be read in his presidential address [5] and the context of his contributions can be seen in [6, 7]. The activities into which the Association was coerced (not unwillingly) can be read in the first three Newsletters [8] (largely written by Combridge). The initiatives taken here led directly to the foundation of the Institute of Mathematics and its Applications, to the setting up of the Mathematics in Education and Industry (MEI) project and to the foundation of the Joint Mathematical Council. Combridge has, perhaps, had less than due recognition for his work and inspiration here; if so, it is just as he would have wished. These major initiatives were far from all he did for the Association. His chairmanship of the committee producing the 'Second report on the teaching of mechanics in schools', for example, showed his powers of persuasion and draughtmanship and his faultless editing, and he was for a long time a guardian of the English of the Association's publications. He had great enthusiasm for the setting up of the archives of the

Association at Leicester and he gave massive support behind the scenes to the office staff. He was much esteemed both at King's and in the Association for his extremely sharp (though kind) sense of humour, completely dead-pan, and more widely for his kind help to members of the teaching profession, particularly for his ability to 'express his unequivocal support for the younger members of the profession and, conversely, so to quosh the arrogant irrelevances of the obstructors to progress'.

In writing this I have had great help from many people, too numerous to list; but particularly from Ruth Tobias.

References

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1897–1986

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