



Sir James Taylor making a presentation to Mr Liddiard at a farewell dinner. Mrs Liddiard is looking on.

## Mr Liddiard retires from Fulmer

At the end of May 1969, Mr E. A.G. Liddiard, FInstP, retired from the post of Director of Research of the Fulmer Research Institute, which he had held for 23 years.

Mr Liddiard was educated in the best (some might say worst) tradition of the English public school, at Christ's Hospital. He left as a Deputy Grecian in 1920 as a result of a serious motor accident that kept him in hospital for six months and in a wheel chair and on crutches for a further five. He took London Matriculation in the autumn of 1920 and started work as a laboratory assistant at Cammell Laird's Cyclops Works in Sheffield at the beginning of 1921. During this period he took evening classes at Sheffield University, obtained Inter B Met and completed the second year course for Assoc Met, but in 1925 he had an opportunity of going to Cambridge, where he took Part I of the Natural Science Tripos in chemistry, physics and mineralogy and went on to study metallurgy under Heycock for the final year. This was prior to the introduction of metallurgy as a Tripos subject.

Mr Liddiard graduated in 1928 and joined the staff of ICI Billingham in the Metallurgy Section under the direction of Dr N. P. Inglis. This was a fairly exciting period in metallurgical developments, which included the introduction of homogeneous lead lining for chemical plant, the production of the first 100-ton ingot for ammonia converter forgings

and the early developments in austenitic stainless steel, where the problem of weld decay was a constant preoccupation. During this period he specialized in corrosion problems. At the end of 1931 he left to join the British Non-Ferrous Metals Research Association as Assistant Development Officer under Dr G. L. Bailey. In 1937 he was seconded to be Assistant Research Superintendent to Dr O. F. Hudson and on the latter's retirement in 1940 was made Research Manager under Dr Harold Moore.

At the end of 1945 he accepted an invitation from Col. W.C. Devereux to start the first sponsored research organization in this country, using the American Battelle and Mellon Institutes-as a pattern. Nonetheless, the Fulmer Research Institute was a commercial undertaking in the sense that it was part of the Almin Group which had as its main interest the fabrication of aluminium and its alloys. Although for the first years a considerable proportion of the Institute's work was concerned with aluminium and its alloys, the Institute was successful in obtaining many outside contracts and by the early 1950s the parent company's sponsorship of research work had fallen to about 3%. Although the Institute did not distribute any dividends to its parent company, it always showed an excess of income over expenditure which was ploughed back in the form of new buildings and equipment, enabling the Institute to expand to its present size of approximately 120 staff, about one third of whom are graduates, with an annual turnover of €280 000.

During Mr Liddiard's period of office the Institute has seen two changes of ownership, the first, in 1961, when the parent company, Almin Ltd, was taken over by Imperial Aluminium Ltd, a joint venture of ICI and Alcoa. During this period no work was done for the parent company, but the Institute continued to grow, although at a somewhat lower rate, and in 1966 the Institute was sold to The Institute of Physics and The Physical Society.

The major part of Mr Liddiard's duties were, of course, concerned with administration, but he played a personal part in some important metallurgical developments at FRI during this period, particularly the invention of the aluminium—tin bearing metals, which were subsequently developed by the Tin Research Institute for Glacier Metals Ltd, and he has always retained a personal interest in corrosion problems.