



**A. J. EDE**

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### ALLAN EDE AT NEL

FOLLOWING his work at the Low Temperature Research Station at Cambridge, Allan Ede was appointed, on promotion, to the Mechanical Engineering Research Organisation at Thorntonhall in 1950. MERO was the institution which later became the Mechanical Engineering Research Laboratory of the Department of Scientific and Industrial Research and is now the National Engineering Laboratory. He joined the Heat Division which was then under the leadership of E. J. Lefevre (now Professor of Mechanical Engineering at

Queen Mary College, London) and one of his first tasks was the specification of new premises for the Division. When the building, now known as the Rankine Building, was opened in 1957, it was probably the best-designed and best-equipped general heat-transfer laboratory in the world. In August 1957, on the resignation of E. J. Lefevre, Allan Ede was promoted Head of Heat Division, and then in 1961, in a major reorganisation of NEL, he became Head of the Basic Heat Transfer and Property of Fluids Division. He

retained that post until his resignation in July 1966 to take up a Chair of Mechanical Engineering at the University of Aston in Birmingham.

Ede's early publications during his period at NEL reflected his continuing interest in natural convection, which began during his time at the Low Temperature Research Station. There were four such publications and reports between 1951 and 1957, and it was during this time that he wrote his long and authoritative monograph on the subject. There were also papers on the drying of food, on temperature distribution during freezing and thawing and on transient conduction in regular geometric solids. The main new interest in which he was personally much involved was heat transfer in pipes and the effects of irregularities such as bends and changes of section. He collaborated in developing some very effective techniques for visual studies and heat-transfer measurements in both laminar and turbulent flow, and he continued this work at Aston (branching into non-Newtonian flow) up to his last illness. Nineteen reports and papers under his authorship appeared on this subject during the NEL period.

He was not, by some standards, a prolific writer of papers. This fact reflects, not a lack of industry or of ideas, but his modesty and generosity to those who worked under his direction. He initiated and guided many research projects and helped and encouraged his staff to publish the results without himself claiming rights of authorship which he could perhaps have justified. The team of which he was the head published papers in heat-transfer in separated flow, in matrices and in plate heat exchangers. There were reports and papers on promoters of dropwise condensation and on film condensation in single and multi-tube condensers and in feed heaters, on the condensation coefficient, and on the heating of storage cylinders exposed to the sun. His division in addition produced *The Steam Tables* 1964 and published numerous papers on the thermodynamic and transport properties of fluids, both theoretical and experimental; he initiated research on

a large range of topics in British universities. He himself published an introductory textbook on heat transfer which is a model of clarity and concise usefulness.

Although he began his professional career as a physicist, Allan Ede thought of himself more and more as an engineer. He was a full member of the Institution of Mechanical Engineers and he served that institution in a number of capacities, as a member of the National Committee on Heat Transfer, and as a member of the Thermodynamics and Fluid Mechanics Group Committee. He was also Chairman of the Design Memoranda Technical Committee on Fluid Mechanics and Thermodynamics.

He was sometimes regarded by those who did not know him well as slightly reticent and perhaps shy. He was not a talkative man and he had the habit of reflecting before he spoke. In technical discussions he often remained silent for some time, and then when his contribution came it was always with great clarity of expression and thought. He valued precision and clarity in both the spoken and written word, and it was characteristic of him that he was active in promoting the SI system of units. He had a fine speaking voice and was a leading actor in the Laboratory's dramatic society. He was also, for a time, chairman of the Staff Association.

To many people speaking of him now the word "gentleman" comes to the lips. At a time when the Laboratory was expanding rapidly and empires were being built he was regarded by some as disinclined to push himself: he was not reticent in upholding the interests of his Division, but he acknowledged the claims of others. He always treated his staff as colleagues with whom he was on easy and friendly terms: he did not readily invite intimacy, but he earned his colleagues' affection and respect.

Many of us were privileged to remain his friends throughout the remainder of his life.

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