

## BOOK REVIEW

G. A. TOKATY: *A History and Philosophy of Fluid Mechanics*. G. T. Foulis and Co. Ltd. Publishers, Henley-on-Thames, Oxfordshire 1971. Henley 2426.

This book will be of great interest to all those anxious to know what has been going on, and how, in the world of aeronautics and space technology, not only in the West but also in the USSR. This is a unique book in several respects. First of all, it is the first book of this kind published on the given subject. Second, its author is a scientist and technologist of unusual background and experience. He has graduated in 1937 from the Zhukovsky Academy of the Soviet Air Forces in Moscow and later became Head of the Laboratory of Aerodynamics of the Academy. Since 1948 he has been living in Great Britain and is Professor and Head of the Department of Aeronautics and Space Technology at the City University, London.

The book is unique also in the sense that, for the first time, it gives a comparative account of what happened in the Soviet Union in the fields associated with fluid mechanics. Finally, the author makes a bold attempt to correct a number of misconceptions in the history and philosophy of fluid mechanics, and thereby to free this subject from the tyranny of dogmas and half-truths.

The author describes the first uses of fluids (Platon, Aristotle), the birth of fluid statics, fluid mechanics, and the experimental fluid mechanics. A very interesting comparative study is given on the subject of the turbulent boundary layer and flow separation, and of the inner structure of fluids. The basic ideas of the drag wall, the transsonic compressibility effects on lift are presented in a rather detailed form. The book consists of further notes on transsonic aerodynamics, on supersonic fluid mechanics (superfluidity) and hypersonic gas dynamics. Concluding remarks are given on the universal matter of energy continuity.

No doubt, this is an essential book for students, engineers, scientists, lecturers and professors of Hydrodynamics, Aeronautics etc. — a book for every institutional and public library.

I. V. NAGY