

**Gasdynamic Discontinuities**

By Wallace D. Hayes. (Princeton Aeronautical Paperbacks, No. 3.) Pp. v+68. (Princeton, N.J.: Princeton University Press; London: Oxford University Press, 1960.) 1.45 dollars; 11s. 6d. net.

**Small Perturbation Theory**

By W. R. Sears. (Princeton Aeronautical Paperbacks, No. 4.) Pp. v+63. (Princeton, N.J.: Princeton University Press; London: Oxford University Press, 1960.) 1.45 dollars; 11s. 6d. net.

**Higher Approximations in Aerodynamic Theory**

By M. J. Lighthill. (Princeton Aeronautical Paperbacks, No. 5.) Pp. v+147. (Princeton, N.J.: Princeton University Press; London: Oxford University Press, 1960.) 1.95 dollars; 16s. net.

**High Speed Wing Theory**

By Robert T. Jones and Doris Cohen. (Princeton Aeronautical Paperbacks, No. 6.) Pp. v+243. (Princeton, N.J.: Princeton University Press; London: Oxford University Press, 1960.) 2.95 dollars; 24s. net.

THAT there is a strong case for publishing 'The Sonnets' independently of the 'Complete Works' is scarcely to be disputed. There is at least as strong a case for separate publication of some, if not all, of the parts of the heterogeneous and overlapping collection of papers by dozens of authors which will eventually make up the twelve volumes of the Princeton Series on "High Speed Aerodynamics and Jet Propulsion". From the pleasantly rounded presentation of the individual contributions it appears that the ties of co-operative endeavour did not too severely constrict the individual authors. Consequently, the six paper-back extracts so far republished should meet a lively demand from those who have been attracted by the two-inch-thick volumes of the original series and from those who have been daunted by them; they will be warmly welcomed by students.

Numbers 1 and 2 in the paper-back series are concerned with rockets. Numbers 3, 4, 5 and 6 are respectively Vol. 3 Section D, Vol. 6 Section C, Vol. 6 Section E and Vol. 7 Section A of the Princeton Series, all widely applauded when they first appeared a few years ago. Number 6, by Mr. and Mrs. Jones, stands particularly well on its own as a really excellent text-book. In subsequent paper-backs in this series the publishers ought briefly to explain their system of cross-references.

**Beiträge zur Physik und Chemie des 20 Jahrhunderts:**

Lise Meitner, Otto Hahn, Max von Laue zum 80 Geburtstag. Herausgegeben von O. R. Frisch, F. A. Paneth, F. Laves und P. Rosbaud. Pp. xii+285+3 tafeln. (Braunschweig: Friedr. Vieweg und Sohn, 1959.) 29.50 D.M.

THIS is a collection of essays which was published to mark the eightieth birthday of three distinguished scientists, Lise Meitner, Otto Hahn and Max von Laue. About two-thirds of the book is in German and the remainder is in French and English. Some of the essays are historical and others contain accounts of very recent work; all are designed to demonstrate the importance of the early fundamental work of the three great pioneers. Many of the papers undoubtedly make extremely important contributions to knowledge; the present writer is much more concerned, however, with another aspect. Prof.

Hooykaas of Amsterdam, speaking at the "Technology and Purpose" Conference at Oxford in 1959, deplored the impersonal nature of modern scientific writing. He pointed out as an example that in early chemical text-books the experimenter was portrayed in full academic robes whereas in modern texts the experimenter is eliminated; the test-tubes apparently support themselves.

The inestimable value of this collection of essays is that it begins to sketch in the character and personality not only of the scientists honoured but also of the many contributors. For example, we find Prof. Prizibram recounting anecdotes about other learned professors, we find Dame Kathleen Lonsdale throwing stones into a pond and we find a paper by Prof. Rosenblum on "Spectres Magnetique des Particules Alpha" beginning "Je regarde mon pouce...".

I can read German only with great difficulty and continual recourse to a dictionary; but in spite of this three vivid impressions have been obtained. The first is of the explosive growth of science in the fifty or so years covered; the second is of the immense fruitfulness of the work of the three great pioneers which stimulated this growth; the third is that perhaps the greatest tribute of all is simply that they should inspire the contributors to write in such warm human terms on subjects that would normally be regarded as completely objective and impersonal.

C. A. TAYLOR

**Fonctions Sphériques de Legendre et Fonctions Sphéroïdales**

Tome 3. Par Dr. Louis Robin. (Collection Technique et Scientifique du Centre National d'Études des Télécommunications.) Pp. viii+289. (Paris: Gauthier-Villars, 1959.) n.p.

THIS is the concluding volume of Dr. Robin's encyclopaedic treatise on Legendre functions and related topics; for the English reader, it supplements Hobson's 1931 treatise by its account of work done in recent years. The main sections deal with addition theorems, zeros, problems relating to a spheroid, torus or cone, and with functions allied to the Legendre functions, such as the Gegenbauer polynomials and functions. There is also a section on the spheroidal functions, mainly an epitome of the full account in Meixner and Schäfer, *Mathematische Funktionen und Sphäroidfunktionen*, and a brief note on spherical Bessel functions. There are numerous bibliographical references, and useful lists of available numerical tables. The text, with its inevitable mass of complicated formulæ, is scarcely light reading, but the book forms a most valuable work of reference, well deserving a place in any mathematical library.

**Biochemical Preparations**

Vol. 7. Edited by Henry A. Lardy. Pp. ix+102. (New York: John Wiley and Sons, Inc.; London: Chapman and Hall, Ltd., 1960.) 42s. net.

THE series of *Biochemical Preparations* needs no special commendation in these columns. It will be sufficient to say that Volume 7 extends and enhances the reputation of established usefulness and merit which the series has already gained, and that it betrays no sense of strain or dilettantism in the choice of matter forming the list of contents.

Of particular interest in the present volume are the methods for the preparation of N-acetylneuraminic acid from human milk; for preparing phosphorus-32-labelled adenosine di- and triphosphates