consequently escapes the Carnot-cycle limitation, and this is one of its greatest attractions.

As to the nomenclature. In Sections A and B, Thermionic Engines, we find: thermionic engines, thermionic power conversion, heat-to-electrical-power transducers (in which the transducer has to accomplish a dimensional change), a thermoelectron engine, a thermionic energy converter, a gas-filled thermionic converter, a cesium plasma diode, a plasma thermocouple (not, however a plasma heat engine, for which we must go to Section C, Magnetohydrodynamics) and an energy converter using low-pressure cesium. Who would guess that all these thermionic devices rest upon a common principle?

Is not Semiconductor Devices too broad and vague a name for Section D, which deals with thermoelectricity and thermoelectric generators?

Unfortunately, such use of language is confined neither to this book nor to this field. But it is more likely to occur in compilations than in books carefully edited.

A chemist is likely to feel there is much mathematics in the book and (Section D excepted) little about materials. And yet, hot cesium continues to be reactive; the composition of compounds is not easily susceptible of precise control; and high temperature will long bedevil those responsible for specifying materials of construction.

The book is well made. Because the subject is of first importance, compilation and publication of the material in book form are easy to justify even though much of the information can be found elsewhere. Purchase of the book is recommended.

Incompressible Aerodynamics: An Account of the Theory and Observation of the Steady Flow of Incompressible Fluid Past Aerofoils, Wings, and Other Bodies. Edited by Bryan Thwaites. 636 pp. Oxford U. Press, New York, 1960. $12.00. *Reviewed by R. E. Street, University of Washington.*

THIS is the first volume in a new series of surveys in fluid mechanics which is to be known as the Fluid Motion Memoirs. The aim is to copy the highly successful *Modern Developments in Fluid Dynamics,* edited by S. Goldstein, which appeared in 1938. Not too many years ago, an additional two volumes on compressible flow entitled *High Speed Flow,* edited by L. Howarth, were published as an addendum to Goldstein. Now we have a volume on incompressible nonviscous fluid flow with additional volumes on laminar flow and turbulence to follow later.

The editor also lists 16 different authors, all English and all well known as contributors of note in the field. The book is right up to date and includes, besides the usual topics which can be found in almost any good book on the subject, a great number of unusual topics not found in any other book, such as the airfoil theories of Goldstein, Lighthill, and Thwaites, boundary layer control, Multhopp's theory of wings, wing-body inter-

action, rotary flows, jet flaps, cascades, and shear flows, to mention only a few. In this great wealth of material lies the book's value and, although it means that the discussion of each topic is relatively brief, they are clear both physically and mathematically, although the mathematical level is quite high. This means that the book will be most useful to advanced students and research workers in the field. Almost any one of these can use the book as a short introduction to almost any topic in the field of applied aerodynamics, and then turn to the 37 pages of references in which to find all of the significant contributions for more detail.

The only criticism which this reviewer can make is the unconventional use of coordinates x, z in airfoil theory which entails the introduction of new symbols for the complex variables $x + iz$ and $\phi + i\psi$, which are going to be hard to write on the blackboard. On the other hand the beautiful photographs, clear graphs and diagrams, and the attractive format, typical of the Oxford Press, more than outweigh this annoying notation.

Mechanik deformierbarer Körper. By Max Päsler. 199 pp. Walter de Gruyter & Co., Berlin, Germany, 1960. Paperbound. DM 5.80. *Reviewed by Ellis H. Dill, University of Washington.*

ONE would probably be amazed to find a paperbound, three-inch by six-inch, two-hundred page, graduate-level treatment of the mechanics of continuous media published in the United States. However, for the German-language press, it is simply a continuation of a job well done.

This volume is one of a series of books on all aspects of the arts, sciences, and technology, of which over three hundred have already been published. It is a brief and clear presentation of the unified, general theory. The material is divided into three parts—mathematical tools, mechanics of solids, and mechanics of fluids.

By ignoring all questions concerning applications of the theory or the manner of solution of the resulting set of equations, the author is able to present, in just sixty pages, a complete but concise derivation of all of the relations that one might find in a text on the theory of elasticity. This includes a discussion of the elastic potential, extremal principles, and elastic waves; topics which are poorly treated in most elasticity texts.

The remaining one hundred pages are devoted to an explanation of the fundamental relations of hydrostatics and of hydrodynamics. This includes compressible fluids (aerodynamics). Some fundamental examples are presented, such as the hydraulic press, rotation of the container in a gravity field, the Venturi tube, the Graham law for gases, flow around a cylinder, etc. Other topics include the theory of surface waves, the Doppler effect, and the Navier-Stokes equation.

The manner of presentation cannot be considered unique but the subject matter is unusually complete and it is rare that both solids and fluids are discussed in a single volume. The treatment is probably too con-