

prising. We find, for example, no mention of the principle of least action, of Hamilton's canonical equations, or a fortiori of the Hamilton-Jacobi partial differential equation, or of invariant integrals. Thus there is necessarily no account of much of the important progress made during the last fifty years on the nature of conservative holonomic dynamical systems.

The length of the *Compendio* is further reduced by the omission of all exercises; for these the authors recommend the use of a book by Bisconcini (*Esercizi e Complementi di Meccanica Razionale*).

With all these omissions the work still runs to over seven hundred pages and thus still partakes something of an encyclopaedic nature in the more elementary parts of the subject. The balance between the statics and kinematics of the first part and the dynamics of the second part is, in our opinion, unfortunate. We should prefer a smaller first part and a larger second, especially inasmuch as the second part also contains a small amount of hydrodynamics and elasticity theory. For this reason we doubt the feasibility of using this work as a textbook in an American university, even if it were translated into English. But as a clearly and charmingly written reference book it might well prove invaluable.

D. C. LEWIS

*Barlow's Tables of Squares, Cubes, Square Roots, Cube Roots and Reciprocals of all Integer Numbers up to 12,500.* Edited by L. J. Comrie. 4th edition. London, Spon; Brooklyn, Chemical Publishing Co., 1941. 12+258 pp. \$3.00.

The book is accurately described by its title. Roots are given to six places of decimals, and reciprocals to seven significant figures. The directions given for interpolation and for computing additional figures are adapted to the use of computing machines. There is appended a short table of powers of integers from 1 to 100 up to the tenth, and of those from 1 to 10 up to the twentieth.

*Barlow's Tables* are of historical interest. First prepared and published in 1814 by Peter Barlow of the Royal Military Academy (Woolwich), they were edited and reissued by A. De Morgan in 1839. The plates ultimately wore out and a third edition was prepared in 1930 by Dr. Comrie of H. M. Nautical Almanac Office. The present is a revision of the third edition, in which the extension from 10,000 to 12,500 is new. The prefaces to the first three editions are included in the present text.

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