are all different (Plessner). Banach's theorem that $C([0, 1])$ is universal for separable Banach spaces is stated and proved. Chapter IV, dealing with completely continuous operators, is standard and also good. Chapter V contains a standard discussion of the spectral theorem for self-adjoint bounded operators on a separable Hilbert space. Chapter VI, the last in the book, is credited mainly to Ljusternik. It deals with nonlinear functional analysis. The principal topics are: derivatives and integrals for functions on $[0, 1]$ with values in a Banach space; Fréchet's differential; implicit function theorems for Banach-space valued functions; extreme values and their calculation.

Limitations of the book in subject matter, perhaps justified in an introductory textbook, are the following. The L_p-spaces dealt with are all on $[0, 1]$. The only space of continuous functions considered is $C([0, 1])$. Compactness for nonmetric spaces is ignored: in discussing the unit ball in $\overline{E}$, for example, the authors show only that it is weakly sequentially compact if E is separable—an assertion much weaker than the theorem of Alaoglu-Bourbaki. Countability arguments are used wherever possible, and the necessary appeal to transfinite induction in proving the Hahn-Banach theorem is slurred over.

The book is fairly discursive, and should be easy reading. It is beautifully printed. The translation is on the whole good, although it is misleading in a few places. A couple of errors in the Russian original have been quietly corrected. The book is marred, however, by a ridiculous exaggeration of the rôle played by Russian, and in particular by Soviet, mathematicians in the development of functional analysis. The rule adopted seems to be: if some Russian had anything to do with it, mention him and no one else; if not, mention no one if you can help it.

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BRIEF MENTION

Einführung in die Verbandstheorie. By H. Hermes. Berlin, Springer, 1955. 8+160 pp. 22.80 DM.

The quickest way to describe the book under review is to say that if there were a Bourbaki treatment of lattice theory, it would be pretty much like that of Hermes. (It is unlikely that there ever will be a Bourbaki treatment of the subject; cf. Bull. Amer. Math. Soc. vol. 59 (1953) p. 483.) The book is an introduction to the elements of lattice theory; the exposition is handled with painstaking care and thoroughness. Once the author decides to discuss a subject, he discusses it systematically; his treatment, for instance, of the various