(Perturbation theory), the coefficient function $q(x)$ is replaced by $q(x)+\epsilon s(x)$, where $q(x)\to\infty$ as $|x|\to\infty$, $s(x)\geqq 0$ and $\epsilon\geqq 0$. In Chapter XX (Perturbation theory involving continuous spectra), it is supposed that $q(x)\to\infty$, $s(x)\to-\infty$, $q(x)=o(|s(x)|)$ as $|x|\to\infty$. The main problem is an estimate of the contribution to the expansion of f, in the perturbed case, of the λ-values outside a small open set containing the discrete eigenvalues of the unperturbed problem. Chapter XXI (The case in which $q(x)$ is periodic) is devoted mainly to the 1-dimensional case. Finally, there is Chapter XXII (Miscellaneous theorems) mentioned above.

In a number of chapters, the general theory is illustrated by applications to interesting examples.

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Linear operators. Part I: *General theory.* By Nelson Dunford and Jacob T. Schwartz, with the assistance of William G. Bade and Robert G. Bartle. New York, Interscience Publishers, 1958. 14+858 pp. $23.00.

In many ways this is an impressive book. The first way in which it is certain to make an impression on anyone who picks it up is by sheer size; an approximate word count reveals that it is only a little longer than *Doctor Zhivago.* Remember, however, that this is only the first volume, containing eight out of a total of twenty chapters. The work is intended to constitute an organic unit; the reasons for binding it in separate volumes are more practical than mathematical. Since at the time that this report is being written the second volume has not yet appeared, what follows refers to the first volume only.

The book makes use of several expository devices, which, while they are not new in concept, are here applied with such an astonishing degree of completeness and on such a gargantuan scale as to deserve special mention. On the end papers, for instance, there is a graph of the interdependence relations among the sections (of the first volume only) that is the most complicated thing of its kind the reviewer has ever seen. The graph is not embeddable into the plane, and it is not at all a trivial task to decipher the information it contains.

A helpful device is a black marginal arrow marking the theorems that may look insignificant but in fact play an important role in later developments.

At the end of most chapters there is a section of notes and remarks. These sections almost completely replace footnotes (a splendid idea). The remarks are not mere afterthoughts and references; they are