

The last two chapters contain the only systematic exposition in English of the use of stress and strain potentials in elasticity theory. A surprising omission is the work of Neuber (*Zeitschrift für angewandte Mathematik und Mechanik* vol. 14 (1934) pp. 203–212); there is no reference to the recent Russian inundation. The virtue of Westergaard's presentation lies in his showing the reader the value of general solutions in terms of arbitrary functions and in his ability to adjust these to yield special cases of real interest.

There are numerous interesting exercises, stated mostly without answer. Some will give the student a surprise if he works them (e.g. Problem 6 on p. 114).

The reader accustomed to other engineering texts will find this one rather different. It is free from "approximations," yet many of the pages contain compact, individual, and interesting remarks on practical applications (e.g. pp. 43–45, 98–99). An example of the author's simple and personal manner of relating theory to experience, even in old material, is as follows (p. 80): "The constant  $\mu$  is called Poisson's ratio; Poisson, in his extensive paper of 1829, presented arguments, later found untenable, that its value should be  $\frac{1}{4}$ . Good approximate values are: for steel, 0.3; for concrete, 0.2; for cork, close to zero, which is important in the operation of pressing a cork into a bottle; and for rubber, slightly less than 0.5, which makes it desirable to insert a rubber stopper into a bottle by turning it rather than by pressing."

To one accustomed to working in the mathematical theory for its own sake, this expression of a distinguished research engineer's belief in the mathematical method and quiet confidence in the exact solutions of the theory of elasticity will be welcome reassurance, especially at a time when traditional mechanics is besieged on opposite sides by computing machines and existence theorems. Every student of elasticity can read this book easily and with both profit and pleasure.

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*Séries adhérentes. Régularisation des suites. Applications.* By S. Mandelbrojt. Paris, Gauthier-Villars, 1952. 14+279 pp. 4000 fr.

This book is an account of researches, mainly due to the author, on various problems which may seem unconnected at first sight. Their collection in one book is justified by the fact that all these questions can be treated by two main tools, the regularisation of sequences and Mandelbrojt's "fundamental inequality." This inequality