

*Elastizitätslehre für Ingenieure, I. Grundlagen und Allgemeines über Spannungszustände, Zylinder, Ebene Platten, Torsion, Gekrümmte Träger.* By Prof. Dr.-Ing. Max Ensslin. (Sammlung Götschen, Nr. 519.) Zweite Auflage. Berlin und Leipzig, Vereinigung wissenschaftlicher Verleger, 1921. 146 pp.

This little book forms one of that admirable collection of booklets known under the general title of SAMMLUNG GÖTSCHEN, and it is a splendid representative of that collection. The problem of the technical theory of elasticity is to show how the forces acting in a given case determine the materials and the form of engineering construction, and to give the means of measurement whereby a breakage is avoided, material is saved, and the form of the unit constructed is held within allowable limits. Engineers have sought to meet the problem partly by a study of experimental data, and they have devised simple approximation formulas and simple graphic methods sufficiently accurate to meet the demands for practical safety and for a reasonable cost of construction. Naturally, the technician soon feels the need of a more accurate method of computing the form and the weight of his materials and the cost of construction; he also desires a proof of his approximation theory. He finds these needs met by the study of the mathematical theory of elasticity; for not only does this latter theory give him valuable insight into the fundamental principles of stresses and strains due to the presence of forces, and into the conditions for the occurrence of the elastic limit, but it also furnishes him many simple formulas useful in computation.

It is the purpose of this and its companion volume to serve as an introduction into these fields. The present volume treats of the general theory of stresses, cylinders, flat plates, the torsion of straight rods, and the deformation of curved rods. Keeping in mind the needs of the technician, the author has applied the theoretical results to many special cases arising in practice, has worked many numerical examples, and has given the graphic representation of the stresses involved in his problems.

JOSEPH LIPKA

*Business and Investment Forecasting.* By Ray Vance. New York, Brookmire Economic Service, 1922. 132 pp.

A small paragraph must suffice for this modest, unpretentious, but very delightful book. Nowadays business and investment barometers built upon the methods of correlation are not unknown to those who have no idea of scientific statistical methods. Vance's aim is to give the intelligent but not technically informed reader a general notion of the history of such barometers and of the principles of their construction. He appreciates and explicitly points out the great difficulties and uncertainties connected with statistical forecasting, the need for constant revision, for wariness, and for hard study. The main emphasis is naturally laid on the Brookmire Barometers, but there are no hard words for others. Anybody who will read Mr. Vance's little book will gain not only an insight into its subject matter, but will feel a high degree of confidence in the integrity of any barometer constructed by the author.

EDWIN B. WILSON