of the continuum considered as an order type, and with the second number class and the problem of distinguished sequences. A few of the point-set-theoretical consequences of the continuum hypothesis are noted. There is a brief remark on the formal representation of ordinal numbers, and a short section on alternatives to the axiom of choice.

The work closes with a chapter on inaccessible numbers.

In addition to an index, the book is supplied with a useful bibliography arranged according to groups of sections in the text.

Springer's printing is excellent, as usual.

F. BAGEMIHL

Experimental design, theory and application. By W. T. Federer. New York, Macmillan, 1955. 19+544+45 pp. $11.00.

This book is addressed exclusively to the experimenter and practical statistician and presents a thorough comprehensive discussion and description of all major types of designs and of the methods for their analysis. Many of the designs described are here for the first time incorporated in a book. The underlying mathematical models are not discussed, but references to the pertinent literature are given. Although the book is not addressed to mathematicians or mathematical statisticians, it will be useful for this group as a reference work.

H. B. MANN

Mathematical theory of elasticity. 2d ed. By I. S. Sokolnikoff. New York, McGraw-Hill, 1956. 11+476 pp. $9.50.

This book constitutes a welcome contribution to the field. It is well written, and is extensively documented, particularly in so far as work in Russia is concerned. This book fills a need which has been apparent for quite some time.

There are seven chapters. Chapters 1–4 and Chapter 7 contain the material which appeared in the first edition, except for minor modifications.

Chapter 5 is new. It deals with the two-dimensional problems of plane strain and of generalized plane stress, which are of course identical mathematically. The method of attack which is usually associated with the name N. I. Muskhelishvili is treated in considerable detail. It will be recalled that in this method the problem is reduced to the determination of two functions of a complex variable, which functions are determined by conformal mapping, together with either solution in series or the solution of certain integrodifferential equations. This material appeared in the author's Brown University