

apt illustration drawn from actual statistics. This with the many references to the literature makes the book very useful. The probability of life is kept in the foreground throughout. The author discriminates between mathematical and statistical probability, and holds that the two have a priori nothing in common. He gives methods of testing the identity of mathematical and statistical probability, that is to say, whether deviations are such as should be expected in the taking of a random sample.

The author divides statistical constants (Masszahlen) into intensive and extensive. Statistical probability belongs to the former and the various kinds of averages to the latter. On page 74 is the statement that the mode (*dichteste Werte*) is far the most important of the extensive statistical constants. The justification of this statement would be of interest when we consider it in connection with the almost universal acceptance of the arithmetic mean as a statistical average.

The representation of mortality by the formulas of Moivre, Lambert, Wittstein, and Babbage are classed as empirical representations, while the formula of Makeham is classed as an analytic representation. The chapter on the adjustment of observations contains in a clear form the methods of moments and least squares for fitting curves to observations; and criteria for the critical examination of the best adjustment.

Taken as a whole, the book is a useful contribution to that portion of mathematical statistics which finds its application in the probability of life.

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*Elektrische Wellen-Telegraphie*, vier Vorlesungen gehalten von J. A. FLEMING. Autorisierte deutsche Ausgabe von E. ASCHKINASS. Leipzig, B. G. Teubner, 1906. 185 pp.

IN 1903 Fleming delivered the Cantor lectures before the London Society of Arts. These lectures on wireless telegraphy were for a popular audience and necessarily were descriptive and general, not mathematical. The translation by Aschkinass enables German readers to follow the author in their own language — which is very important for the class of readers for whom the lectures are primarily intended. Perhaps the most noteworthy characteristic of the style which is adopted is the constant close touch with nature and the forcefulness of analogy between disturbances in the ether, with which most of Fleming's