

or of balls in the pile from which bags are filled with justifies one in making an assumption as to the laws of the frequencies in the bag in question. A table constructed upon this hypothesis may be tested by experience and found correct. The whole matter depends upon the validity of the assumption.

The method of the book assumes a given list of deaths according to sex, age and cause, and to this is added the biological hypothesis:

"The frequency distribution of deaths according to age from certain groups of causes of death among the survivors in a mortality table tend to cluster around certain ages in such a manner that the frequency distribution can be represented by either a Laplacean-Charlier or a Poisson-Charlier frequency curve."

With this goes a classification of causes of death according to some seven or eight groups. The mortality curve is considered as a compound curve made up from component frequency curves corresponding to the groups. The characteristics of these components are supposed known a priori.

Upon this foundation, Fisher is able to build up a mortality table. In the book he goes through the actual calculation of several tables that turn out to be satisfactory. In the mind of the reviewer the book marks a step forward in actuarial science in that it points out a method of attack on problems connected with that great mass of data in which the exposed to risk is difficult or impossible to find. There is no claim made that the method supersedes the old conventional method depending upon the number exposed to risk and losses among such exposures. However, it is possible that further experience with the method by the author and by others will show limitations in its applications. Before it is accepted by the conservative actuary, he will require much more evidence in the nature of satisfactory tables computed by many actuaries.

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*Analytical Mechanics*. Second edition. By Edwin H. Barton. London, Longmans, Green and Company, 1924. 593 pp.

The first edition of this book was published in 1911. The new material in the second edition consists mainly of alternative proofs and more examples. About three hundred examples chosen from London examination questions set in the years 1911-23 have been added, bringing the total number to more than a thousand. To these a complete set of answers is now given separately at the end.

The text, divided into six parts, covers the field of mechanics quite thoroughly. Besides a preliminary survey of the scope of mechanics, the introductory part contains a collection of formulas from algebra, geometry, trigonometry, and the calculus. The second part gives a