CONTENTS

Preface . . . . . . . . . . . . . . . . . . . page vii

Lecture I . . . . . . . . . . . . . . . . . . . 1

Introductory observations on the place of mathematics in Statistical and Actuarial Theory
Errors due to neglect of the principle that theoretical assumptions should not contain contradictions, illustrated by a discussion of (1) the Biometric functions; the doctrine of the "oldest age"; (2) the problem of two different mortality tables which produce identical policy values; (3) presumptive values of frequency-constants

Lecture II . . . . . . . . . . . . . . . . . . . 21

A mathematical investigation of the limits of error in the calculation of $\bar{a}_x$ when the force of mortality follows Makeham's Law
A proposition in inequalities; with applications to Tchebycheff's inequality, to the value of $\bar{a}_x$, to the values of temporary life annuities, to the policy values of endowment assurances, and to the paid-up policy that can be granted for a pure endowment

Lecture III . . . . . . . . . . . . . . . . . . . 35

The theoretical foundation of various types of frequency-functions. The English School; Karl Pearson's types. The Continental School; the A-series; Charlier's B-series. Some notes on factorial moments

Notation . . . . . . . . . . . . . . . . . . . 49

Index . . . . . . . . . . . . . . . . . . . 51