Automobile Merit Rating and Inverse Probabilities by LESTER B. DROPKIN.

How many accidents will a given group of drivers have in the next "t" years? This question is neatly answered by the author who first observes that this same group had "c" accidents in the past "s" years. He solves the problem with the use of Bayes Theorem.

A New Approach to Infant and Juvenile Mortality by CHARLES C. HEWITT, Jr.

The author tackles the famous problem of developing a variation of Makeham's Law of Mortality which will cover all ages from birth to death.

The rationale used is to split the force of mortality operating at age x into three component parts: (1) the portion attributable to chance causes independent of age, (2) the portion which depends on the "obsolescence" or deterioration of the body's ability to resist death, and (3) the element which recognizes the individual's inherent predisposition to death. This leads to a formula for the force of mortality of a *group of individuals* in the form

$$\bar{\mu}_x = A + Bc^x + \frac{r}{a + x}$$

where r and a are the parameters of the Pearson Type III curve.

The Negative Binomial Applied to the Canadian Merit Rating Plan for Individual Automobiele Risks by CHARLES C. HEWITT, Jr.

This paper is divided into three sections. The first is a summary of current theoretical developments, the application of the Negative Binomial to give the probability of exactly "x" accidents occurring in a future period of time "t" when it is previously known that this group had exactly "c" accidents in the last "s" years. The second section is an application of this distribution to Canadian Merit Rating Classes, taking into account the limitations of the class breakdowns, to arrive at an expression for the average weighted forward claim frequency. Section three then tests the results of section two on the available Canadian data.

Multiple Coverage Experience Rating Plan by Eldon J. KLAASSEN.

This paper develops an experience rating plan utilizing the multisplit principle for automobile liability, general liability and first party automobile damage combined. The plan assumes that there will be some correlation between the experience in different lines and the author then provides a larger and more stable base for experience rating.

The Census Method by LAURENCE H. LONGLEY-COOK.

The author suggests that the census method, long used by life actuaries in mortality studies, would provide a means of simplifying the laborious work involved in the policy year or accident year methods at present used in analyzing classified statistics for rate making purposes.