In chapter three, under the heading of the equation of a line and of a conic, a coordinate system is for the first time introduced. From the author's viewpoint the use of symbols is unnecessary but is convenient as rendering a demonstration easier to follow. If $A$, $B$, $C$ are symbols attached to any three points of a plane, not lying in the same straight line, then any other point $P$ in the plane has a symbol of the form $xA + yB + zC$ where $x$, $y$, $z$ are algebraic quantities. This has been shown in volume one as a consequence of postulates of incidence and the theorem of Pappus. Then $(x, y, z)$ or $(mx, my, mz)$ are the coordinates of $P$. With the coordinates thus introduced the usual analytic geometry is readily developed.

In chapter four there is discussion of the use of imaginary elements in geometry and the logical questions involved.

Chapter five treats of projective measurement of distance and angle with reference to a fundamental conic, and discusses somewhat fully the types of non-euclidean geometry which result.

F. S. Woods

*Mathematical Theory of Life Insurance.* By C. H. Forsyth. New York, John Wiley and Sons, 1924. 6 + 74 pp.

Books dealing with the mathematics of finance and life insurance may be divided roughly into two classes: (1) those that present thousands of formulas; (2) those that attempt to select a comparatively few as fundamental. While certain students may learn best from the first type of book, the second type is more attractive and more inspiring. Forsyth's text is of the second type; and in the reviewer's opinion, the selection of topics and formulas to be stressed is decidedly felicitous. The first half of the book presents with great simplicity and direct nessthe rudiments of probability, the mortality table, and the premiums for annuities and insurances. As an analogue for $_nE_x$, Forsyth introduces the symbol $_nI_x$ as the single premium for insurance covering the $n$th year only; and thus $A_x = \sum {}_nI_x$, just as $a_x = \sum {}_nE_x$. Chapter IV explains rather briefly but comprehensively the valuation of policies in accordance with the laws of different states, and this chapter is decidedly important. The instructor will have to supplement this to some extent, and may prefer to give the prospective method before the retrospective method. In using the "shuttle" $_nE_x$, it should be noted that the "$x$" refers to the earlier age, not to the age from which the change is made. Chapter V explains in a simple manner the Makeham formula and its use in joint insurance, leaving for the two-page appendix the derivation of the Makeham formula. The American Experience Table is given, with columns for $l_x$, $d_x$, $q_x$, $p_x$, $e_x$, $D_x$, $N_x$, $M_x$, the three latter on the basis of $3\frac{1}{2}$ %. Numerous exercises appear throughout the text.

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