two such sextics, and $u_a^2 = 0$ the conic carrying the related involution, then the envelope

$$(clu)^6 = 0$$

is the triply counted conic: $(clu)^6 \equiv \rho \cdot (u_a^2)^3$. So for the similarly related pairs of higher order.

VASSAR COLLEGE.

CANTOR'S HISTORY OF MATHEMATICS.

Vorlesungen über Geschichte der Mathematik. By MORITZ CANTOR. Vierter Band. Von 1759–1799. Leipzig, Teubner, 1908. 8vo. vi + 1113 pp. 32 Marks.

IT is a long period that Moritz Cantor looks back upon to the time when he made his first noteworthy contribution to the history of mathematics. He was little more than a boy when he published his Inaugural-Dissertation "Ueber ein weniger gebräuchliches Coördinaten-System" in 1851, — only twenty-two years old; and it was only five years later that he entered upon his life work as historian of mathematics, by the publication of his paper "Ueber die Einführung unserer gegenwärtigen Ziffern in Europa." He was thirty-four when his first noteworthy treatise on the history of mathematics appeared, the "Mathematische Beiträge zum Kulturleben der Völker" (Halle, 1863). And next August he will be eighty years old, with over a dozen books to his credit, with hundreds of memoirs, with a notable record as editor of the *Zeitschrift für Mathematik und Physik* and the *Abhandlungen zur Geschichte der Mathematik,* and with academic honors and governmental recognition commensurate with the great work that he has accomplished.

For a man of nearly eighty to undertake a work of the magnitude of this fourth volume of the Geschichte would seem foolhardy, were he not such a man as Professor Cantor. When the third volume was completed in 1898 it seemed proper that it should be called the last, as was the case, and under all the circumstances any man might have been well content to say his *nunc dimittis.* That Professor Cantor was not thus content is a cause of gratification to all who are interested in the history of mathematics, and a worthy lesson to all who feel that three-score years mark the bounds of man's working life.

The present volume is not the work of Cantor himself in the