BOOK REVIEW

A history of the conic sections and quadric surfaces. By J. L. Coolidge.
Oxford University Press, 1946. 11+214 pp. $6.00.

Despite the wealth of the literature extant dealing with the conic
sections, and the large amount of easily accessible material concerning
the quadric surfaces, the extensive synopsis presented in this study
by a distinguished geometer must be regarded as an altogether worth-
while endeavor. The connected account which the author gives of
these loci, from the discovery of the conics by Menaechmus (pupil
of Plato and Eudoxus) to the differential properties of quadric sur-
faces, makes this a book which both amateur and professional
mathematicians will consult with pleasure and profit. The copious
quotations from early writers which the book contains are interlarded
with sprightly observations. Though the animated style employed is
perhaps unusual in a serious historical study, it undoubtedly stimu-
lates reader interest.

The first two chapters are devoted to the work of the Greeks. In
the twelve hundred years from the time of Pappus to the beginning
of the sixteenth century, there was apparently a complete loss of in-
terest in the subject. The third chapter takes up the history with the
re-awakening of interest evidenced by the work of Werner, Desargues,
Pascal, and so on, and carries the account down to the great projec-
tive school, which is the subject of Chapter IV. Chapters V, VI, and
VII deal with miscellaneous metrical theorems, systems of conics, and
conics in space, respectively. They are followed by a chapter of six
pages, concerning mechanical construction of conics, which completes
the treatment of the conic sections.

The remaining fifty-five pages of the book are devoted to the quad-
ric surfaces. The work is divided into four chapters, dealing with the
synthetic, algebraic, higher algebraic, and differential methods.

The book is concluded with an excellent list of papers and books
quoted in the text and an adequate subject index.

<div align="right">LEONARD M. BLUMENTHAL</div>