Plane Analytic Geometry, with introductory chapters on the
Differential Calculus. By Professor Maxime Bôcher.

This compact and clearly written textbook gives the
essential properties of the conic sections and ends with two
chapters on the differentiation of algebraic functions with
applications.

The lemniscate is the only curve of higher degree which is
discussed at any length, but its graph is correct, thereby
differing from the representations commonly published.
Other curves are barely mentioned, nor has the book an index.
Thus the student of engineering especially must wait for a
later course to unfold cardioids, catenaries, spirals, and
witches.

The preface states that "Analytic geometry, if properly
taught, is a difficult subject, and concentration on a few of
its important principles is necessary if mastery is the aim,"
and later, "It is only by degrading it to a course in graphics
(curve plotting, numerical problems, etc.), that a course in
analytic geometry can be made easy to the average student."

The student will have to be careful to note that in a right-
handed system of coordinates, a positive (left-handed) rota-
tion changes the $OX$ axis into the $OY$ axis. In a note the
author states that "The word 'normal' (in Hesse's normal
form of the straight line equation) is here used in the sense of
'standard.' It has nothing to do, as some American text-
books have implied, with the normal to a curve or line."

Throughout the book, curves with no real points are con-
sistently referred to as "no locus," and definitions are so
framed as to exclude degenerate cases. The chapter on
determination of loci is short but explicit, while that on the
general equation of the second degree gives a detailed and
complete discussion, ending with the problem of a conic
through five points.

For the student proceeding to the calculus, a course in
solid analytic geometry must follow this text, but otherwise
one who has finished this book will be excellently prepared.

F. H. Safford.