History and Synopsis of the Theory of Summable Infinite Processes. By
L. L. Smail. University of Oregon Publications, vol. 2, No. 8, Feb.
1925. 175 pp.

This monograph gives a detailed analysis of the literature on divergent
series, from the beginnings of the modern theory, in 1880, to 1922. About
two hundred fifty papers on divergent series were produced in this period.
These are listed here, in chronological sequence, and the contents of each
indicated. The abstracts are, in most cases, very explicit, and permit one
to get at the substance of the papers with great rapidity. The monograph
will undoubtedly be found an invaluable work of reference by many in-
vestigators.

<div align="right">J. F. RITT</div>

Elementary Algebra. Part II. By F. Bowman. London, Longmans, Green
and Co., 1927. viii+431 pp.

Except for the first four chapters, which treat the binomial, the expo-
nential, and the logarithmic series, this book is designed to answer certain
questions relating to the theory of equations which arose in Part I. The
subjects developed are those usually treated of in elementary texts on the
theory of equations, including the elements of determinants and linear
equations. The author introduces the complex variable and proves the
fundamental theorem of algebra. In this he does not confine himself to
the bare necessities but includes considerable interesting material on
algebraic functions and the geometry of the complex plane. The calculus
is studiously avoided, the derivative being introduced under the name
gradient function. There is a chapter on graphs, frequent graphical illus-
trations, numerous examples and many excellent sets of exercises.

<div align="right">L. T. MOORE</div>

Harmonic Curves. By William F. Rigge, S.J. Published by the Creighton
University, Omaha, Nebraska, 1926. 8vo. 213 pp.

While Father Rigge's volume does not perhaps call for special notice
from the point of view of higher mathematics, it is particularly attractive
to those who are interested in the construction of "conventional" designs.
There are numerous diagrams which have been reproduced without change
from those actually obtained from his machine, and these show remarkable
accuracy in closing complicated symmetric figures. The machine referred
to is one which has been gradually developed over an interval of nine years.
It contains many components giving harmonic curves and these are greatly
increased in number by interchangeable gears. Since it also contains
"linkage" components it can draw many types of cycloids and cardioids
as well as compound harmonic curves. The author in his preface says that
if we consider periods only, it is capable of drawing 7,618,782,498 curves!
An interesting additional feature is the production of stereoscopic figures.
The elementary equations of the simpler curves are worked out in detail.

<div align="right">E. W. BROWN</div>