THE NUMBER-SYSTEM OF ALGEBRA, Treated Theo-
    retically and Historically.   By Professor H. B. FINE.
    Boston and New York; Leach, Shewell & Sanborn,
    1891. 8vo, pp. IX. + 131.

AT the present time we frequently find mathematical re-
searches preceded by an historical account of the question
under discussion : and this is but another proof of the increas-
ing importance of the study of mathematical history. On
the other hand, it is necessary that the history of any branch
of the science form part of such books as are intended for
students. For pedagogic reasons the historical part of a trea-
tise ought to be placed at the end of the volume, or at least at
the ends of the various chapters.

Mr. Fine's recent book takes its place among the not very
numerous works combining a systematic treatment with an
historical account. It may be regarded as an introduction to
the theory of functions of one variable. In this short re-
view I shall only refer to the historical part of the work,
which occupies the latter part of the book (pp. 79–131). The
author begins by noticing the symbols and systems of numer-
ation, and then passes to the history of fractions and irrational
quantity among the Ancients. He then summarizes the prog-
ress of algebra, from the earliest times down to Descartes,
and finishes with the development of the fundamental notions
of algebra, from Newton to Weierstrass and G. Cantor. For
the ancient history, that of the Middle Ages and down to
1600, Mr. Fine has chiefly followed the well-known works of
Moritz Cantor and Hankel. For modern history he has gen-
erally had recourse to original sources.

One or two improbable or inexact statements may be no-
ticed. For instance, Regiomontanus is mentioned as the
author of the *Algorithmus Demonstratus* (1534).* Again,
the year 1630 is given as the date of the introduction of the
sign ÷, and it is said to have been first used by Pell.† These
inaccuracies are, however, of slight importance, and Mr.
Fine's book will doubtless be found of much assistance to
students of mathematics.   G. ENESTRÖM.
    STOCKHOLM.

Translated from *Bibliotheca Mathematica*, 1891, No. 2,
with additions from the author, by HAROLD JACOBY.

---

* There exists a copy of this work, antedating the birth of Regiomon-
tanus, and attributed to Jordanus Nemorarius.

† The sign is really due to Rahm, and the date is 1659. Compare
BEMAN, *Bibl. Math.*, 1887, p. 96.