Introduction to the Theory of Algebraic Equations. By LEONARD
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matics in the University of Chicago. New York, John
Wiley and Sons, 1903. Small 8vo, v + 104 pp.

THE aim of this little volume is to furnish a very elemen-
tary introduction to the Galois theory of algebraic equations.
The book is divided into eleven brief chapters bearing the fol-
lowing headings : Solution of the general quadratic, cubic and
quartic equations ; Substitutions ; Substitution groups and
rational functions ; The general equation from the group stand-
point ; Algebraic introduction to Galois theory : The group
of an equation ; Solution by means of resolvent equations ;
Regular cyclic equations, abelian equations ; Criterion for alge-
braic solvability ; Metacyclic equations, Galoisian equations ;
An account of more technical results.

There are five sets of exercises in addition to a number of
illustrative examples. These examples are an especially com-
mendable feature, as they are carefully selected and of a suffi-
ciently elementary character to aid the student in avoiding the
many pitfalls which beset his way when he first enters upon
this difficult subject. In view of the fact that the literature of
this subject contains so few usable examples which serve to
illustrate some of the most difficult points, such as the group
of a special equation, the present lists are especially welcome.

An appendix of four pages and a complete index close the
volume. The former is devoted to Gauss's proof of the funda-
mental theorem on symmetric functions, and to Moore's proof
of the theorem that a rational, integral function of x_1, x_2, $\cdots$, x_n
with constant indeterminate coefficients cannot be equal to zero
unless it is identically zero. The proofs throughout are brief
and the matters are stated in a clear and definite form. Pos-
sibly the brevity of proof has sometimes been carried to an ex-
treme, as on top of page 18. However, the principal object of
an introductory course should be to lead a student to a clear
comprehension of the main questions and results, and the pres-
ent volume seems admirably adapted to this end.

G. A. MILLER.