of view, and they certainly have very little interest for American readers.

<div align="right">OSWALD VEBLEN.</div>

Elementare Algebra. Akademische Vorlesungen für Studierende. By Professor Dr. EUGEN NETTO. Leipzig, B. G. Teubner, 1904. viii + 200 pp.

THE book under review is written in the informal and somewhat detailed style of the lecture as distinguished from a treatise, is rather generously supplied with well-chosen figures, and contains a good index but no exercises for the student to solve. It is the outgrowth, as the author tells us in the preface, of a course of lectures (entitled Einleitung in die Algebra) which he gives during the summer semester of each year in the University of Giessen.

The purpose of the book, and also of the lectures on which it is based, is two-fold : for those students who are to continue their work in mathematics, it is designed to bridge over the gap which usually exists between the algebra of the fitting school and that of the university ; and to the non-mathematical student it presents, in a somewhat popular form but from a broad viewpoint, some of the more important problems and methods of algebra, a knowledge of which should have a place in a liberal education.

Equations of the first four degrees determine the main divisions of the book, and around these cluster a great variety of topics. Thus there are eight chapters with the following titles : I Equations of the first degree ; II Pure quadratic equations ; III General quadratic equations ; IV Permutations and combinations ; V Determinants. Linear equations ; VI Binomial equations ; VII Cubic equations ; VIII Biquadratic equations. And among the many topics discussed under these headings may be mentioned : in Chapter I determinants of the second order, arithmetical progression, continued fractions, and indeterminate equations ; in Chapters II and III Newton's method of approximation, periodic continued fractions, imaginary and complex numbers (including a rather full graphic treatment), probability that the roots of a random quadratic are real, simple and multiple valued functions and discriminants ; with an equally richly varied selection for the other chapters, — Chapter V is particularly well done.