

there is little doubt that he will find this presentation of the geometric function theory most stimulating, and that he will be eager to pursue the subject farther. And this is one of the highest ends a text book can attain.

O. D. KELLOGG

BRILL'S LECTURES ON ALGEBRAIC CURVES

Vorlesungen über ebene algebraische Kurven und algebraische Funktionen.

By Alexander Brill. Braunschweig, Vieweg, 1925. x+340 pp. R. M. 17.50.

The book under review embodies in final form the course of lectures which, for many years, Brill has given at the University of Tübingen. As is well known Brill together with Noether are the twin-stars of German geometers who did the important pioneer work concerning the geometry on algebraic curves.

One may therefore expect that a treatise on the subject by such a man should contain much that is of value and of fundamental importance for the student of geometry and, in a wider sense, for the mathematician in general.

It is true that the lectures are intended for the beginner, i.e., in American terminology, for the first and possibly second year graduate student. In other words, the student will have a fairly good start in algebraic geometry after he has mastered Brill's lectures.

It is obvious that Brill's purpose does not aim at the comprehensiveness and extensive vistas of Enriques' beautiful *Lezioni* or Severi's penetrating *Vorlesungen*. Brill is anxious to stress the function theoretic aspect of the subject more or less in the Weierstrassian spirit, and expects much from such a systematic treatment of the fundamental ideas of algebraic geometry. Thus, referring to the results of the Italian school and in particular to appendices F and G of Severi's *Vorlesungen*, for which Brill has written such a sympathetic introductory preface, Brill expresses the opinion that an attempt to put Severi's method of proof in algebraic form might turn out to be worth while.

Probably the majority of academic teachers who in the course of years repeatedly lecture on the same topic find it advisable to make progressive changes in the choice of the subject matter and its method of presentation. This is of course as it should be if the teacher keeps track of recent advances, in short, if he is up to date.

Brill states that in former years he put more stress upon the projective point of view, while in later years he returned more and more to the standpoint of the first discoverers in this field, of Descartes, Newton, Cramer, Euler, in so far as the graphical or geometric form relations (*gestaltlichen Verhältnisse*) are concerned. The reviewer may be prejudiced, but he nevertheless regrets that the projective point of view should have been relegated to second or third place.