

plane. It is a distinct digression from the rest of the book, and is quite elementary. It was introduced to make the later appendices intelligible, but the treatment in these applications is so condensed that it can be of little value to a reader not having much more familiarity with conformal representation than that provided in the first appendix.

The second, of 20 pages, on the Tschirnhausen transformation, includes a detailed treatment of the reduction of the quintic to the Bring-Jerrard normal form; otherwise it is rather similar to the corresponding portion of Weber's Algebra.

The third appendix of 20 pages considers the solution of the icosahedron equation. The first half gives a very rapid survey of the Schwarzian derivative, the hypergeometric series, and the expression of the constants of transformation by means of gamma functions. The subject proper of this appendix is the working out of the problem suggested in Klein's *Icosaeder*, page 139, *i. e.*, to start with the general binary quintic and deductively obtain the solution in terms of modular functions. The discussion is followed by a numerical illustration which greatly adds to its clearness.

The last appendix, of 40 pages, is concerned with linear transformations of elliptic theta functions and modular functions. As in the two preceding appendices, the amount of presupposed knowledge is much greater than in the book proper. The treatment is entirely transcendental, and has nothing in common with the preceding portions of the work. Numerous references show the relations between the present development and the existing literature, but it is not clear why this subject should be treated in a book on algebraic invariants.

VIRGIL SNYDER.

*Table de Caractéristiques relatives a la Base 2310 des Facteurs premiers d'un Nombre inférieure a 30,030.* By ERNEST LEBON. Paris, Delalain Frères, 1906. 32 pp.

IN this pamphlet the author has published a table of "characteristics with respect to the base 2310" by means of which any number between 1 and 30,030 can be readily factored. The first twelve pages are devoted to an explanation of the simple theory upon which the usefulness of the table is based, and to a description of the devices by means of which the characteristics are calculated. The last twenty pages contain the table itself. In a recent number of the BULLETIN, Professor