

thoroughly satisfactory one on this fundamental question in the theory of differential equations.

Chapter XII. contains some applications of the general theorems, and begins with some of the well-known theorems of Briot and Bouquet and then follows a most important theorem due to Painlevé and the latter's notion of fixed and movable critical points. The writer has given a brief explanation of what Painlevé means by these terms in another number of this BULLETIN, and it need not be repeated here. Riccati's equation is next studied, and the chapter closes with an account of the inversion of the elliptic integral and of certain entire functions associated with the elliptic functions. The fuller study of the subject of differential equations and of the functions defined by them is reserved for another volume.

The writer is quite conscious of the inadequacy of the preceding notice to give a satisfactory idea of this most important work of M. Picard's. The attempt has been made to show how in each theory or its application M. Picard goes at once to what is essential and in particular in the applications how he has selected really important problems in analysis, geometry, and mathematical physics. No applications are given simply because they afford pretty exercises in analysis or give rise to very symmetrical sets of formulæ. It is customary to say something about the typography of a book reviewed and concerning errata. As for the former, it is hardly necessary to comment on Gauthier-Villars' manner of getting up a book. As for the latter, they are too few and trifling to mention: still one might mention one which the reader will not find out is an error until he has read nearly a page further. In the third line from the bottom of page 45, vol. I, we find the words: "Je me place d'abord dans le premier cas." Instead of the "first case" it should be the "*second case*."

T. CRAIG.

BALTIMORE, Oct. 10, 1893.

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#### NOTES.

A REGULAR meeting of the NEW YORK MATHEMATICAL SOCIETY was held Saturday afternoon, October 7, at half-past three o'clock, the president, Dr. McClintock, in the chair. The following persons, having been duly nominated and being recommended by the council, were elected to membership: Mr. John M. Colaw, Monterey, Va.; Mr. David Lyman Pettegrew, Worcester, Mass.; Dr. Isaac J. Schwatt, University of Pennsylvania; Professor David Eugene Smith, Michigan State