ment with many cuts and pictures of the following six topics : 1) Les instruments arithmétiques ; 2) Les machines arithmétiques ; 3) Les instruments et machines logarithmiques : 4) Les tables numériques (barèmes) ; 5) Les tracés graphiques ; 6) Les tables graphiques (nomogrammes ou abaques). The volume also includes an interesting introduction and many historical notes.

L. I. HEWES.

Theorie der elliptischen Funktionen. Von H. DURÈGE. In fünfter Auflage neu bearbeitet von LUDWIG MAURER. Leipzig, B. G. Teubner, 1908. 436 + viii pp.

IT is difficult to understand on what ground this work can appropriately be called a new edition of Durège's well-known and admired book, since scarcely a trace of the original seems to have been left.

The first edition appeared in 1861, and was followed by successive editions at intervals of ten years or less, until the fourth in 1887, which was hardly more than a reprint of the third. There can be little doubt as to the inadvisability of further revising this work, now over twenty years old in its latest form, and which represents the state of the theory substantially as it was at the time of Jacobi. Since then this field has been transformed by the new theories of Weierstrass and Riemann, and has been more or less modified or influenced by other lines of mathematical activity such as the theory of groups and the Galois theory of equations. Moreover, the recently developed elliptic modular functions and the still more general class of the automorphic functions afford an extension or generalization which has not only placed the elliptic functions themselves in a new light, but has laid stress on their properties when the periods are regarded as additional independent variables.

It would evidently be quite out of the question to engraft all of these new methods and ideas on to the older theory as expounded by Durège, and Professor Maurer has started *de novo* in his treatment without attempting, as far as we can observe, to incorporate any of the material of the older work except that of course the jacobian functions are given their proper share of attention. The Weierstrassian functions and methods, however, predominate, and the influence of the great work of Klein and Fricke on the elliptic modular functions is observable throughout.