MEMOIRS ON INFINITE SERIES.

Memoirs on Infinite Series. Published by the Tokio Mathematical and Physical Society. Tokio, Japan, 1891. 253 pp.

THIS work occupies quite a unique place among translations, and deserves a brief mention in the pages of the BULLETIN. The scope of the book is fully indicated by the table of contents, as follows:

LEJEUNE-DIRICHLET.—On the convergency of the trigonometrical series which serves to represent an arbitrary function between given limits. (Translated from French into English by R. Fujisawa.)

LEJEUNE-DIRICHLET.—On the series whose general term involves two angles and which serves to represent an arbitrary function between given limits. (Translated from French into English by R. Fujisawa.)

ABEL.—Researches on the series

$$1 + \frac{m}{1}x + \frac{m(m-1)}{1 \cdot 2}x^2 + \frac{m(m-1)(m-2)}{1 \cdot 2 \cdot 3}x^3 + \cdots$$

(Translated from French into English by K. Miwa.)

GAUSS.—General examination of the infinite series

$$1 + \frac{\alpha\beta}{1 \cdot \gamma}x + \frac{\alpha(\alpha+1)\beta(\beta+1)}{1 \cdot 2 \cdot \gamma(\gamma+1)}x^2 + \frac{\alpha(\alpha+1)(\alpha+2)\beta(\beta+1)(\beta+2)}{1 \cdot 2 \cdot 3 \cdot \gamma(\gamma+1)(\gamma+2)}x^3 + \cdots$$

(Translated from Latin into English by D. Kikuchi.)

KUMMER.—On the hypergeometric series

$$1 + \frac{\alpha\beta}{1 \cdot \gamma}x + \frac{\alpha(\alpha+1)\beta(\beta+1)}{1 \cdot 2 \cdot \gamma(\gamma+1)}x^2 + \frac{\alpha(\alpha+1)(\alpha+2)\beta(\beta+1)(\beta+2)}{1 \cdot 2 \cdot 3 \cdot \gamma(\gamma+1)(\gamma+2)}x^3 + \cdots$$

(Translated from German into English by H. Nagaoka.)

All the above papers are from *Crelle's Journal* except the fourth, which is from Gauss's Gesammelte Werke. Of the papers themselves nothing need here be said. They are all classical works of the first importance, and are familiar to every mathematician who has a reading knowledge of French,