

parts, as in Chapter II., whole pages, and those the hardest pages to read, can be replaced by a very short explanation on the part of the teacher. If the time spent upon the text-book is thus abbreviated, it would be possible even in a short course to go on to other questions, both more instructive and more interesting than the formal matters thus omitted, such for instance as Schwarz's  $s$ -functions, the real solutions of real differential equations, or the study of irregular points by means of infinite determinants or semi-convergent series.

Although a considerable list of misprints has been noted in a page of Errata, placed after the table of contents, several others have escaped notice. This list of Errata includes besides actual misprints, the correction of a few more or less trifling mistakes. There are unfortunately certain mistakes which even here have escaped the author's notice. One which has been transcribed directly from Fuchs's memoir in Crelle, vol. 66, p. 150, occurs near the bottom of p. 37. There will be in general no real positive quantities  $M_1 \cdots M_n$  greater than the absolute values of the quantities (7), throughout the circle of radius  $r$ , since the quantities (7) will in general become infinite at some point of this circle. It is absolutely necessary here to introduce a second circle with a radius a little smaller than  $r$ . A second error occurs near the end of § 46. The "neighborhood" of the point  $x=0$  for the equation (1') is not  $U$  as is here stated, but in general, smaller than  $U$ . That the series in formula (8<sup>a</sup>) p. 89, nevertheless converge throughout  $U$  requires of course a proof which is not there given, but which can be easily supplied.

MAXIME BÔCHER.

HARVARD UNIVERSITY,  
September, 1896.

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## NOTES.

A SPECIAL Meeting of the American Mathematical Society was held at Princeton University, on Saturday, October 17, at quarter past three, P. M. There were thirty-four members of the Society and thirteen visitors present. The President, Dr. G. W. HILL, occupied the chair, and introduced Professor FELIX KLEIN and Professor J. J. THOMSON, who addressed the Society. Professor KLEIN discussed the stability of a sleeping top. Professor THOMSON spoke

on mathematical questions connected with Röntgen rays and kindred phenomena.

All business, including the election of new members, was postponed until the next meeting of the Society.

*Nature* states that on September 13, a monument to Lobachevsky, erected at Kazan, in a square which bears the name of the celebrated geometer, was unveiled in the presence of various dignitaries including members of the University and the local Physical and Mathematical Society. Appropriate addresses were delivered by Professor SUVÒROV and by Professor VASÌLIEV.

UNIVERSITY OF GÖTTINGEN. The mathematical courses announced for the winter semester are the following: By Professor SCHERING: Potential function.—By Professor KLEIN: Integral calculus; Automorphic functions.—By Professor SCHUR: Applications of the method of least squares.—By Professor HILBERT: Theory of functions of a complex variable; Theory of algebraic equations.—By Professor SCHOENFLIES: Projective geometry.—By Professor BURKHARDT: Introduction to a mathematical treatment of the natural sciences.—By Dr. BOHLMANN: Mathematical principles underlying life insurance; Theory of probabilities.—By Dr. SOMMERFELD: Partial differential equations arising in mathematical physics.

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## NEW PUBLICATIONS.

### I. HIGHER MATHEMATICS.

- EUCLIDES. Opera omnia, ediderunt I. L. Heiberg et H. Menge. (In 12 voluminibus.) Vol. VI: Data, cum commentario Marini et scholiis antiquis, edidit H. Menge. Leipzig, Teubner, 1896. 8vo. 6 and 336 pp. Mk. 5.00
- GOEBEL (K.). Die Zahl und das Unendlichkleine. Leipzig, Fock, 1896. 8vo. 47 pp. Mk. 1.20
- GOTSCHO (L.). Miscellen aus der Theorie der Kurven und Flächen zweiter Ordnung unter Anwendung der Methode des Unendlichgroßen. [Diss.] Freiburg, 1896. 8vo. 61 pp., 2 plates.
- HEIBERG (I. L.). See EUCLIDES.
- MARINUS. See EUCLIDES.
- MENGE (H.). See EUCLIDES.
- SPELTA (C.). Sull' integrazione dei sistemi di equazioni differenziali simultanee di qualunque ordine e grado. Nota II. Genova, Ciminago, 1896. 4to. 6 pp.