

PROFESSOR CHARLOTTE ANGAS SCOTT, of Bryn Mawr College, has been elected an honorary member of the Amsterdam Mathematical Society.

At the University of Göttingen Dr. GEORG BOHLMANN has been promoted to a professorship of mathematics, and Drs. J. SOMMER and E. ZERMELO have been appointed docents in mathematics.

DR. FLORIAN CAJORI, formerly professor of physics at Colorado College, has been made professor of mathematics in the same institution, and Dr. S. J. BARNETT has been promoted to the professorship of physics.

DR. L. A. BAUER has resigned his position as assistant professor of mathematics and mathematical physics at the University of Cincinnati, having been appointed chief of the new division of terrestrial magnetism in the U. S. Coast Survey. Dr. F. H. SAFFORD, instructor in mathematics at Harvard University, has been appointed to the position formerly held by Dr. Bauer.

DR. F. C. FERRY, of Clark University, has been elected assistant professor of mathematics in Williams College.

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## NEW PUBLICATIONS.

### I. HIGHER MATHEMATICS.

- BERGER (A.). Undersökningar öfver nagra aritmetiske Funktioner. Stockholm, 1898. 8vo. 41 pp. M. 1.50  
 — Om de konvexa Polyedrarne. Stockholm, 1898. 8vo. 26 pp. M. 1.20
- BITELLI (G.). L'insegnamento delle misure lineari superficiali volumetriche. Bologna, 1899. 12mo. 50 pp. Fr. 1.50
- BRUN (F. DE). Einige neue Formeln der Theorie der elliptischen Functionen. Theil II. Stockholm, 1898. 8vo. 9 pp.
- BURKHARDT (H.). Funktionentheoretische Vorlesungen. Zweiter (Schluss-) Theil. Elliptische Funktionen. Leipzig, Veit & Co., 1899. 8vo. 16 and 373 pp. M. 10.00
- ENCYKLOPÄDIE der mathematischen Wissenschaften. Erster Theil, Band I., zweites Heft. Leipzig, Teubner, 1899. M. 3.40
- ESCHERICH (G. v.). Die zweite Variation der einfachen Integrale. Mittheilung 1-3. Vienna, 1899. 8vo. 60, 60, 48 pp. M. 3.10

- FRANCESCHI (G.). I più importanti teoremi di aritmetica ragionata. Naples, 1899. 12mo. 140 pp. Fr. 2.25
- GRÖNWALL (H.). Sur les fonctions qui ne satisfont à aucune équation différentielle algébrique. Stockholm, 1898. 8vo. 9 pp. M. 0.80
- LIPSCHITZ (R.). Bemerkungen über die Differentiale von symbolischen Ausdrücken. Berlin, 1899. 8vo. 15 pp. M. .50
- MEBIUS (C. A.). Ueber die Ableitung der Maxwell'schen Differentialgleichungen aus dem Hamilton'schen Principe. Stockholm, 1898. 8vo. 7 pp.
- MITTAG-LEFFLER (G.). Om den analytiska Främställningen af en allmän monogen Funktion. III. Stockholm, 1898. 8vo. 11 pp.
- NEPPI-MODONA (A.) E VANNINI (T.). Questione e formole di geometria analitica (ad una e due dimensioni). Secunda edizione. Palermo, 1899. 8vo. Fr. 4.00
- PIETSCH (C.). Katechismus der Raumberechnung. Anleitung zur Grössenbestimmung von Flächen und Körpern jeder Art. Vierte, verbesserte Auflage. Leipzig, 1899. 8vo. 8 and 124 pp. Cloth. M. 1.80
- PUZYNA (J.). Theory of analytic functions. Volume I. Lemberg, 1898. 8vo. 18 and 549 pp. (Polish). M. 14.00
- VANNINI (T.). See NEPPI-MODONA (A.).

## II. ELEMENTARY MATHEMATICS.

- BAGGI (V.). See BOCCARDO (E. C.).
- BOCCARDO (E. C.) e BAGGI (V.). Trattato elementare completo di geometria pratica. Torino, 1899. 8vo.
- COMPENDIO di aritmética ; por los Hermanos de las escuelas cristianas. Para uso de las clases infimas. Correspondiente á los cursos preparatorio y elementale. Duodecima edicion. Tours, Mame, 1899. 18mo. 126 pp.
- JACKSON (J.). Practical arithmetic on an entirely new method for schools, examination candidates, etc. London, Low, 1899. 8vo. 460 pp. 4s.
- LACHLAN (R.). Elements of Euclid. Book I. Revised edition. London, Arnold, 1899. 8vo. 152 pp. 1s.
- MACDONALD (R. F.). A school arithmetic. London, Macmillan, 1899. 8vo. 272 pp. 2s. 6d.
- NESBIT (H. A.). See SONNENSCHN (A.).
- O'SULLIVAN (D.). Principles of arithmetic : a complete text-book for use of teachers and advanced pupils. 15th edition, revised and enlarged. London, Simpkin, 1899. 8vo. 432 pp. 3s. 6d.
- Practice of Arithmetic : a companion volume to the principles of arithmetic. Part I. 38th edition. London, Simpkin, 1898. 12mo. 248 pp. 2s.
- Key to practice of arithmetic. Parts I. and II. 5th edition. London, Simpkin, 1899. 12mo. 92 pp. 3s.

- PLESSNER (P.). Lehrbuch der Stereometrie oder Körperlehre nebst Aufgabensammlung und 4-stelligen Rechentafeln. Köln, 1899. 8vo. 8 and 98 pp. M. 1.60
- PRESSLAND (A. J.) and TWEEDIE (C.). Elementary trigonometry. London, Simpkin, 1899. 8vo. 160 pp. 2s.
- SANDERSON (F. W.). Geometry for young beginners: an introduction to theoretical and practical geometry. New York, The Macmillan Co., 1899. 16mo. 9 and 132 pp. \$ .35
- SCHAPOSCHNIKOFF (N.) and WALZOFF (N.). Collection of algebraic examples. Part II. 6th edition. Moscow, 1898. 8vo. 190 pp. (Russian). M. 2.50
- SONNENSCHN (A.) and NESBITT (H. A.). New science and art of arithmetic for schools. London, Sonnenschein, 1899. 8vo. 516 pp. 4s. 6d.
- TEEGAN (T. H.). Elementary and intermediate algebra. 10th edition. 8vo. 596 pp. 6s.
- TWEEDIE (C.). See PRESSLAND (A. J.).
- VACCHA (D. H.). Key to algebraical factors and their application to various processes in algebra (for beginners). 3d edition, revised and enlarged. New York, Longmans, 1898. 12mo. 6 and 187 pp. \$.75
- VEGA-VERDUGO (J. M.). Algebra, escrita con sujecion al programa vigente para los examens de ingreso en la escuela naval flotante. Madrid, 1898. 4to. 288 pp. Fr. 13.00
- WALZOFF (N.). See SCHAPOSCHNIKOFF (N.).

### III. APPLIED MATHEMATICS.

- BARBARO (L.). Sul' equilibrio d'una sfera e d'un involucro sferico solidi, elastici ed isotropi sotto l'azione di forze di massa provenienti da un potenziale di secondo grado. Messina, 1899. 8vo. 31 pp. Fr. 2.50
- BIK (A.). Elements of geodesy. Volume III. 2d edition. Moscow, 1898. 8vo. 384 pp. (Russian). M. 12.00
- CAMPBELL (W. W.). The elements of practical astronomy. 2d edition. Revised and enlarged. New York, The Macmillan Co., 1899. 12 and 164 pp. \$2.00
- DEVILLE (E.). Photographic surveying, including the elements of descriptive geometry and perspective (Ottawa Gov. Series) London, Low. 12mo. 250 pp. 10s. 6d.
- HURST (J. T.). Handbook of formulas, tables and memoranda for architectural surveyors and others engaged in building. 15th edition. New York, Spon & Chamberlain, 1899. 32mo. 512 pp. Leather. \$2.00
- MARBE (K.). Naturphilosophische Untersuchungen zur Wahrscheinlichkeitslehre. (Grundzüge der Wahrscheinlichkeitsrechnung; Untersuchungen über öffentliche Glücksspiele, etc.). Leipzig, 1899. 8vo. M. 1.20
- MEYER (O. E.). Die kinetische Theorie der Gase. In elementarer Darstellung mit mathematischen Zusätzen. Zweite Auflage. 2. Hälfte. Breslau, Maruschke and Berendt. 8vo. 16 and pp. 145-352 and 65-128. M. 7.00

PERCHOT (J.). See TISSERAND (F.).

POINCARÉ (H.). See TISSERAND (F.).

REULEAUX (F.). The constructor : a handbook of machine design ; authorized translation, complete and unabridged from the 4th enlarged German edition, by H. H. Suplee. Milwaukee, C. N. Caspar, 1899. \$7.50

RUFFINI (F. P.). Ricerche intorno ai momenti d'inerzia di un sistema di punti privo di baricentro. Bologna, 1899. 8vo. 26 pp. Fr. 2.50

SCHULTZ-STEINHEIL (C. A.). Eine Methode, den Jupitersradius zu bestimmen. Stockholm, 1898. 8vo. 11 pp.

STRÖMGREN (E.). Ueber Kometenbahn-Excentricitäten. Theil I. Stockholm, 1898. 8vo. 30 pp. M. 2.00

SUPLEE (H. H.). See REULEAUX (F.).

TISSERAND (F.). Leçons sur la détermination des orbites, professées à la Faculté des Sciences de Paris. Rédigées et développées pour les calculs numériques, par J. Perchot. Avec une préface de H. Poincaré. Paris, Gauthier-Villars, 1899. 4to. 124 pp. Fr. 3.50

WADDELL (J.). The arithmetic of chemistry : being a simple treatment of chemical calculations. New York, The Macmillan Co., 1899. 12mo. 8 and 133 pp. \$.90