

NEW PUBLICATIONS.

I. HIGHER MATHEMATICS.

- AMSLER (A.) und RUDIO (F.). J. Amster-Laffon. Mit Bildnis. Zürich, Zürcher und Furrer, 1912.
- ARCAIS (F. D'). *Analisi infinitesimale*. 3a edizione, con modificazioni ed aggiunte. Volume I. Padova, Draghi, 1912. 8vo. 12+791 pp. L. 12.50
- BIBLIOGRAPHY, Russian, of science and mathematics. Volume 5 (1906). Petersburg, 1912. 8vo. 196 pp.
- BJÖRSTEDT (P. T.). *De exakta π -värdet jämte en ny polygonteori*. Stockholm, 1912. 8vo. 92 pp. M. 3.00
- BÖGER (R.). *Symmetrische Involutionen und fokal getrennte Geraden*. (Progr.) Beilstein, 1912. 56 pp.
- BOTTO (A.). *Soluzione geometrica del problema relativo alla duplicazione del cubo*. Torino, 1912. 8vo. 13 pp. L. 1.25
- BURALI-FORTI (C.). *Corso di geometria analitico-proiettiva*. Torino, Gallizio, 1912. 8vo. 7+268 pp.
- CASA (F.). *Ueber die Normalen konfokaler Kegelschnitte*. (Progr.) Prag-Kleinseite, 1912. 8vo. 13 pp.
- DALWAI (B.). *Die Theorie der Parallelfächen einer gegebenen Fläche mit besonderer Berücksichtigung der Parallelfächen von Regelfächen*. (Progr.) Hall i. T., 1912. 8vo. 39 pp.
- ECHOLS (W. H.). *Investigation of the value of an infinite series on the boundary of the region of convergence*. Charlottesville, Va., 1911. 8vo. 13 pp. \$0.25
- . *On a certain quadratic form, with its geometric and kinematic interpretations*. Charlottesville, Va., 1912. 8vo. 12 pp.
- . *On the maximum and minimum values of a linear function of the radial coördinates of a point with respect to a simplicissimum in space of n dimensions*. Charlottesville, Va., 1910. 8vo. 40 pp. \$0.90
- FAVARO (A.). *Archimede*. Genova, Formiggini, 1912. 16mo. 83 pp.
- FESTSCHRIFT Heinrich Weber. *Zu seinem 70. Geburtstage am 5. März 1912. Gewidmet von seinen Freunden und Schülern*. Leipzig, Teubner, 1912. 8vo. 8+500 pp. M. 24.00
- FUCHS (C. A.). *Die Ähnlichkeitsbeziehungen zweier und mehrerer Kreise*. Komotau, 1911. 8vo. 23 pp.
- GAU (E.). *Sur l'intégration des équations aux dérivées partielles du second ordre par la méthode de Darboux*. Paris, 1911. 4to. 123 pp. Fr. 7.50
- GRAWE (D.). *Encyclopedia of mathematics. A sketch of the present state of the science*. (Russian.) 1911. 8vo. 661 pp. \$2.00
- GYR (W. X.). *Die Polaren der Lemniskate*. Bern, 1911. 8vo. 60 pp. M. 2.50

- HAIMERL (F. X.). Der grosse Fermatsche Satz und seine Lösung mit Hilfe eines Modells. Nürnberg, 1912. 8vo. 16 pp. M. 0.60
- HÖNIGSWALD (R.). Zum Streit über die Grundlagen der Mathematik. Heidelberg, 1912. 8vo. M. 2.60
- HUTCHINSON (J. I.). See SNYDER (V.).
- JANISZEWSKI (S.). Sur les continus irréductibles entre deux points. Paris, 1911. 4to. 99 pp. Fr. 6.00
- JUST (W.). Ueber den Büschel kubischer Raumkurven auf einer Fläche zweiten Grades durch vier ihrer Punkte. (Diss.) Breslau, 1912. 8vo. 96 pp.
- LOBACHEFSKY (J. N.). New elements of geometry, with a complete theory of parallels. With a biographical sketch. (Russian.) Charkow, 1912. 8vo. 234 pp. \$0.60
- MARCA (R. LA). Criteri di congruenza e criterî di divisibilità; esercizi varî. Torre del Greco, Pantaleo, 1912. 8vo. 30 pp.
- MEYER (F.). Diskussion eines Systems von Rotationsflächen 2ten Grades. Bern, 1911. 8vo. 71 pp. M. 2.00
- NABHOLZ (P.). Geometrische Interpretation linearer Abhängigkeiten und ihre Anwendung auf endliche und unendliche lineare Gleichungssysteme. (Diss.) Zürich, 1910. 8vo. 120 pp. M. 3.00
- NEWTON (Sir I.), The portrait medals of. Boston, Ginn, 1912. 8vo. 22 pp.
- ONDRAZEK (H.). Der Dirichletsche Satz über die lineare Funktion im Zahlkörper der Determinante +5. (Diss.) Wien, 1911. 8vo. 45 pp.
- OTTOLENGHI (B.). Coesistenza e identità dei limiti di Hölder e di Cesaro. Padova, Prosperini, 1912. 8vo. 16 pp.
- PHIN (J.). Seven follies of science. 3d edition, greatly enlarged. New York, Van Nostrand, 1912. 12mo. 9+231 pp. \$1.25
- PLAS (H. M.). De functionaalvergelijking van Fredholm opgelost met behulp van cosinusreeksen. (Diss.) Groningen, 1911. 8vo. 114 pp.
- ROSCHIN (P.). Memoirs on the differential and integral calculus. Part II: Integral calculus, (Russian.) Petersburg, 1912. 8vo. 508 pp. \$2.50
- RUDIO (F.). See AMSLER (A.).
- RUSSELL (B.). See WHITEHEAD (A. N.).
- SNYDER (V.) and HUTCHINSON (J. I.). Elementary textbook on the calculus. New York, American Book Co., 1912. 12mo. 384 pp. Half leather. \$2.20
- STAGER (H. W.). On numbers which contain no factors of the form $p(kp + 1)$. Berkeley, University of California, 1912. 8vo. 26 pp. \$0.60
- SYLVESTER (J. J.). Collected mathematical papers. In about 5 volumes. Volume IV (1882-97). Cambridge, University Press, 1912. 8vo. Cloth. 18s.
- USAI (G.). Su due involuppi piani. Pavia, Mattei, 1912. 8vo. 7 pp.

- VALLE (A.). Tesi svolti di matematica. Napoli, Tambelli, 1912. 8vo. 84 pp. L. 2.00
- WANSBOROUGH (W. D.). The A B C of differential calculus. 3d edition. London, Technical Publishing Co., 1912. 12mo. 12+148 pp. Cloth. 3s. 6d.
- WEBER (H.). Lehrbuch der Algebra. 2te Auflage, 1ter Band. Neuer Abdruck. Braunschweig, Vieweg, 1912. 8vo. 15+704 pp. M. 10.00
- . See FESTSCHRIFT.
- WEIGEL (J.). Ueber die gestaltlichen Verhältnisse der Integralkurven einer Differentialgleichung erster Ordnung zweiten Grades in der Umgebung eines Doppelpunktes der Diskriminantenkurve. (Diss.) München, 1912. 4to. 64 pp.
- WELSCH (J.). Ueber das durch die gemeinsamen Tangenten zweier Flächen 2ter Ordnung bestimmte Nullsystem. (Diss.) Erlangen, 1912. 8vo. 107 pp.
- WHITEHEAD (A. N.) and RUSSELL (B.). Principia mathematica. 3 volumes. Volume II: Cardinal and relation arithmetic; series. Cambridge, University Press, 1912. 8vo. 34+772 pp. Cloth. 30s.
- WHITFORD (E. E.). The Pell equation. New York, Whitford, 1912. 8vo. 193 pp.

II. ELEMENTARY MATHEMATICS.

- ASCOLI (G.). Complementi di geometria. Livorno, Giusti, 1912. 8vo. 10+237 pp. L. 3.00
- BATES (E. L.) and CHARLESWORTH (F.). Practical geometry and graphics. London, Batsford, 1912. 8vo. 632 pp. 4s.
- BEAVEN (C. L.). Solutions of the exercises in Godfrey and Siddons' solid geometry. New York, Putnam, 1912. 8vo. \$1.50
- BERRY (A. J.). Visual and observational arithmetic. London, Pitman, 1912. 8vo. 178 pp. 2s. 6d.
- BOARD OF EDUCATION. Special reports on educational subjects. No. 12: Mathematics with relation to engineering work in schools. London, 1912. 2d.
- . No. 13: Teaching of arithmetic in secondary schools. London, 1912. 2½d.
- . No. 14: Examinations. London, 1912. 3d.
- . No. 15: Educational value of geometry. London, 1912. 1½d.
- . No. 16: A school course in advanced geometry. London, 1912. 1½d.
- . No. 17: Mathematics at Osborne and Dartmouth. London, 1912. 2½d.
- BORCHARDT (W. G.) and NEWTON (C.). Key to elementary algebra. London, Rivingtons, 1912. 8vo. 10s.
- BRICKE (F.). Aufgaben aus der analytischen Geometrie, I. (Progr.) Breslau, 1912. 4to. 16 pp.
- CHARLESWORTH (F.). See BATES (E. L.).

- CHILLEMI (G.). *Calcolo dei radicali*. Catania, Giannotta, 1912. 8vo. 8 pp.
- CONVERSE (H. A.). See DURELL (F.).
- DURELL (F.). *Introductory Algebra*. New York, Merrill, 1912. 12mo. 286 pp. \$0.60
- . *Plane and spherical trigonometry; with chapters on plane surveying by H. A. Converse*. New York, Merrill, 1912. 8vo. 295+32 pp. \$1.40
- FELDMAN (D. D.). See HART (C. A.).
- FRATTINI (G.). *Lezioni di algebra, geometria e trigonometria*. Volume II. Torino, Paravia, 1912. 8vo. 7+211 pp. L. 4.00
- GALE (A. S.). See SMITH (P. F.).
- HART (C. A.) and FELDMAN (D. D.). *Solid geometry*. With the editorial coöperation of V. Snyder and J. H. Tanner. New York, American Book Co., 1912. 12mo. 187 pp. \$0.80
- HART (W. W.). See WELLS (W.).
- MAIR (D. B.). *Junior mathematics; an introduction to geometry and algebra, following modern lines without going to extremes. With or without answers*. New York, Oxford University Press, 1912. Cloth. \$0.50
- MORITZ (R. E.). *Elements of plane trigonometry; high school edition*. New York, Wiley, 1912. 8vo. 8+315 pp. Cloth. \$1.00
- MURRAY (D. A.). *Elements of plane trigonometry; spherical trigonometry*. New York, Longmans, 1912. 8vo. 9+136+9+114 pp. Cloth. \$1.00
- . *Elements of plane trigonometry; spherical trigonometry; logarithmic and trigonometric tables five-place and four-place*. New York, Longmans, 1912. 8vo. 9+136+9+114+95 pp. Cloth. \$1.25
- NAYLOR (W. A.). See TUCKEY (C. O.).
- NEWTON (C.). See BORCHARDT (W. G.).
- RANSOM (W. R.). *Freshman mathematics, including computation, trigonometry, applied algebra and coördinate geometry*. Tufts College, Mass., 1912. 8vo. 4+175 pp. Lithographed. \$1.30
- SCHULTZE (A.). *The teaching of mathematics in secondary schools*. New York, Macmillan, 1912. 12mo. 20+370 pp. Cloth. \$1.25
- SMITH (D. E.). *Present teaching of mathematics in Germany*. New York, Teachers College, 1912. 8vo. 124 pp. \$0.30
- . See WENTWORTH (G.).
- SMITH (P. F.) and GALE (A. S.). *New analytic geometry*. Boston, Ginn, 1912. 12mo. 10+342 pp. \$1.50
- SMOLEY (C.). *Parallel tables of logarithms and squares, diagram for solving right triangles, and other tables*. 7th edition, revised and enlarged. New York, McGraw-Hill, 1912. 12mo. 6+329 pp. \$3.50
- SOCCI (A.) et TOLOMEI (G.). *Elementi di matematica; libro di testo per le scuole normali*. 7a edizione, completamente rifatta. 3 volumi. Firenze, Le Monnier, 1912. 8vo. 212, 196 and 197 pp. L. 3.00

- SOLUTION of triangles. 2 volumes. 2d revised edition. New York, Industrial Press, 1912. 8vo. \$0.50
- TAYLOR (E. O.). Introduction to geometry. London, Oxford University Press, 1912. 12mo. 140 pp. 1s. 6d.
- TIMERDING (H. E.). Die Erziehung der Anschauung. Leipzig, Teubner, 1912. 8vo. 8+241 pp. M. 5.60
- TOLOMEI (G.). See SOCCI (A.).
- TUCKEY (C. O.) and NAYLOR (W. A.). Analytical geometry. A first course. Cambridge, University Press, 1912. 8vo. 382 pp. 5s.
- WELLS (W.) and HART (W. W.). First year algebra. New York, Heath, 1912. 340 pp. \$0.90
- WENTWORTH (G.) and SMITH (D. E.). Work and play with numbers. Boston, Ginn, 1912. 12mo. 3+144 pp. \$0.35
- WENTWORTH (G. A.). Plane and solid geometry. Teacher's edition, revised by G. Wentworth and D. E. Smith. Boston, Ginn, 1912. 12mo. 3+590 pp. \$1.50
- WORKMAN (W. P.). Memoranda mathematica. A synopsis of facts, formulae and methods of elementary mathematics. London, Clarendon Press, 1912. 8vo. 308 pp. 5s.

III. APPLIED MATHEMATICS.

- ACHITSCH (A.). Einiges zur Orientirung auf der Erdoberfläche. (Progr.) Laibach, 1912. 8vo. 15 pp.
- ADLER (A. A.). The theory of engineering drawing. New York, Van Nostrand, 1912. 8vo. 15+312 pp. Cloth. \$2.00
- ALEXANDER (T.) and THOMSON (A. W.). Twenty-six graduated exercises in graphic statics. Cheaper edition. London, Macmillan, 1912. Sewed. 5s.
- ARENA (S. F. G.). Le applicazioni di algebra elementare. Rovigo, Sociale, 1912. 8vo. 109 pp.
- BARRÉ (E.). Sur une classe de solutions des équations indéfinies de l'équilibre d'élasticité. Nancy, 1911. 4to. 78 pp.
- BISHOP (C. T.). Structural details of hip and valley rafters. New York, Wiley, 1912. 4to. 5+72 pp. Cloth. \$1.75
- BLUDAU (A.). See ZÖPPRITZ (K.).
- BRANCH (J. G.). See BURNS (E. E.).
- BURNS (E. E.) and BRANCH (J. G.). Practical mathematics for the engineer and electrician. Chicago, Branch, 1912. 12mo. 143 pp. \$1.00
- CARCANO (C.). Algebra pratica. Rocca S. Casciano, Cappelli, 1912. 16mo. 99 pp. L. 0.80
- DREYER (J. L. E.). See HERSCHEL (W.).
- FANTASIA (P.). Nozioni ed esempi di calcolo delle coordinate geodetiche. Milano, Reggiani, 1912. 8vo. 182 pp. L. 8.00
- FORREST (S. N.). Mining mathematics. London, 1911. 8vo. 312 pp. 5s.

- GENOVINO (G.). Nuovo metodo di astronomia sferica che determina il luogo dell' osservatore come punto d' incontro di due circoli massimi, ecc. Genova, Genovino, 1912. 8vo. 56 pp.
- HEAVISIDE (O.). Electromagnetic theory. Volume 3. London, Electrician, 1912. 8vo. 530 pp. 21s.
- HERSCHEL (W.). Scientific papers, including early papers hitherto unpublished. With a biographical introduction compiled mainly from unpublished material by J. L. E. Dreyer. 2 volumes. London, 1912. 4to. 717 and 729 pp. Boards. 54s.
- HINKS (A. R.). Map projections. Cambridge, University Press, 1912. 8vo. 138 pp. 5s.
- HOWE (M. A.). The design of simple roof-trusses in wood and steel; with an introduction to the elements of graphic statics. 3d edition, revised and enlarged. New York, Wiley, 1912. 8vo. 8+173 pp. Cloth. \$2.00
- HURST (H. E.) and LATTEY (R. T.). A textbook of physics. 3 volumes. London, Constable, 1912. 8vo. 214, 186 and 266 pp. 11s. 6d.
- JANET (P.). Allgemeine Elektrotechnik. 1ter Band: Grundlagen; Gleichströme. Deutsch von Süchting und Riecke. Leipzig, Teubner, 1912. M. 7.00
- JOHANSEN (N. P.). Laerebog i geodaesi til brug ved undervisningen i stabsafdelingen ved haerens officerskole. Kjöbenhavn, 1912. 8vo. 462 pp. M. 12.00
- JOSLYN (P. L.). Energy and velocity diagrams of large gas engines; their use and lay-out. Cincinnati, Gas Engine Publishing Co., 1912. 8vo. 2+70 pp. \$2.00
- KAPP (G.). Electricity. (Home university library of modern knowledge.) London, Williams & Norgate, 1912. 12mo. 256 pp. 1s.
- KRUG (K.). Das Kreisdiagramm der Induktionsmotoren. Berlin, 1911. M. 2.80
- LAMB (H.). Statics, including hydrostatics and the elements of the theory of elasticity. Cambridge, University Press, 1912. 8vo. 354 pp. 10s. 6d.
- LATTEY (R. T.). See HURST (H. E.).
- LEONTOWITSCH (A.). Elementares Hilfsmittel zur Anwendung der Methoden von Gauss und Pearson bei Schätzung der Fehler in der Statistik und in der Biologie. Teil II und III: Methoden Pearsons; Hilfstabellen. (Russian.) Kieff, 1911. 8vo. 307 pp.
- LONEY (S. L.). Elementary treatise on statics. Cambridge, University Press, 1912. 8vo. 8+393 pp. Cloth. 12s.
- LOW (D. A.). Practical geometry and graphics. New York, Longmans, 1912. 8vo. 6+448 pp. Cloth. \$2.50
- MARSH (H. W.). Constructive textbook of practical mathematics. Volume I: Industrial mathematics. New York, Wiley, 1912. 8vo.
- MERRIMAN (M.) and others. American civil engineer's pocket book. 2d edition, enlarged. New York, Wiley, 1912. 16mo. 1483 pp. Morocco. \$5.00
- RICKER (N. C.). A treatise on the design and construction of roofs. New York, Wiley, 1912. 8vo. 12+432 pp. Cloth. \$5.00

- RIPPER (W.). Steam-engine in theory and practice. 6th edition. New York, Longmans, 1912. 8vo. 12+490 pp. Cloth. \$2.50
- RYAN (W. T.). Design of electrical machinery. Volume III: Alternators, synchronous motors, rotary convertors. New York, Wiley, 1912. 8vo. 7+129 pp. Cloth. \$1.50
- SATTERLY (J.). See STEWART (R. W.).
- SCHAD (J.). Das Centrifugalpendel. (Diss.) Giessen, 1911. 8vo. 52 pp.
- SKIBINSKY (E. J.). Collection of notes and papers on the mathematical theory of elasticity. (Russian.) Kieff, 1912. 8vo. 187 pp.
- SLAGLE (W. C. H.). Descriptive geometry; in 6 parts. New York, McGraw-Hill, 1912. 8vo. \$6.00
- SOMERSCALES (A. N.). Lessons in mechanics. London, Munro, 1912. 8vo. 278 pp. 3s. 6d.
- STABILINI (G.). Sui sistemi di proiezione assonometrica parallela. Bologna, Emiliana, 1912. 4to. 27 pp.
- STEWART (R. W.) and SATTERLY (J.). Junior sound and light. London, Clive, 1912. 8vo. 7+227 pp. 2s. 6d.
- TANZI (A.). Confronto matematico fra il sistema tolemaico e copernicano. Larino, Galuppi, 1912. 8vo. 21 pp.
- THOMAS (G.). Die hydrodynamischen Wirkungen einer schwingenden Luftmasse auf zwei Kugeln. (Diss.) Giessen, 1912. 8vo. 29 pp.
- THOMSON (A. W.). See ALEXANDER (T.).
- TREVISANI (R.). Trattato di proiezioni ortogonali e prospettiva elementare. Savignano di Romagna, Rubicone, 1912. 8vo. 31 pp.
- WEIR (J.). The energy system of matter. Deduction from terrestrial energy phenomena. London, 1912. 8vo. 210 pp. Cloth. 6s.
- WESTLIN (O. E.). Realitäten, Abstraktionen, Fingirungen und Fiktionen in der theoretischen Mechanik. Stockholm, 1911. 8vo. 56 pp. M. 2.50
- WINOGRADOW (M. N.) and others. Elementary practical geodesy. 2d edition. (Russian.) Moscow, 1912. 8vo. 666 pp. \$2.00
- ZONA (A.). Studio del metodo di Gylden per il calcolo delle perturbazioni dei pianeti. Palermo, Borzi, 1912. 8vo. 43 pp.
- ZÖPPRITZ (K.). Leitfaden der Kartenentwurfslehre. 3te, neubearbeitete und erweiterte Auflage, herausgegeben von A. Bludau. 1ter Teil: Projektionslehre. Leipzig, Teubner, 1912. 8vo. 12+264 pp. M. 9.00