

DR. H. W. REDDICK, of Columbia University, has been appointed professor and head of the department of mathematics in the Cooper Union, New York City.

PROFESSOR R. D. CARMICHAEL, of Indiana University, has been appointed assistant professor of mathematics in the University of Illinois.

By mutual arrangement between the departments concerned, Mr. C. H. YEATON, recently appointed instructor in mathematics at Dartmouth College, has resigned to accept a similar appointment at Northwestern University, and Mr. C. R. DINES, at present instructor at Northwestern University, has accepted an instructorship in mathematics at Dartmouth College for the coming academic year.

At Cornell University Drs. C. F. CRAIG and F. W. OWENS have been promoted to assistant professorships of mathematics.

At the Massachusetts institute of technology Dr. B. B. LIBBY and Mr. GEORGE RUTLEDGE have been appointed instructors in mathematics.

DR. G. M. CONWELL, of Yale University, has been appointed instructor in mathematics in the New York state college for teachers.

NEW PUBLICATIONS.

I. HIGHER MATHEMATICS.

- AMOROSO (F.). *Complementi di analisi algebrica elementare, con appendice sulle sezioni coniche.* 2a edizione, riveduta e migliorata. Napoli, Pirro, 1912. 16mo. 34+229 pp.
- BRENKEN (E.). *Die Erzeugung der Kurven konstanten Gauss'schen Krümmungsmasses auf Flächen zweiten Grades durch elliptische Zylinder.* Papenburg, 1914. 17 pp. M. 1.50
- COUTURAT (L.). *L'algèbre de la logique.* 2e édition. (Collection Scientia.) Paris, Gauthier-Villars, 1914. 8vo. 100 pp. Fr. 2.00
- DAVISON (C.). *Subjects for mathematical essays.* London, Macmillan, 1914. 8vo. 3s. 6d.
- D'ENNO (J. G. A.). *Ein ganz elementares Verfahren zur Lösung des grossen Fermat'schen Satzes wie auch zur vollständigen Erweiterung und Verallgemeinerung des berühmten Theorems mit Uebungen und Anwendungen auf die Geometrie für die höheren Klassen der Mittelschulen.* Trient, G. B. Monauni, 1912. Gr. 8vo. 23 pp.
- *Ein neues Verfahren zur Lösung des grossen Fermat'schen Satzes.* Trient, G. B. Monauni, 1912. Gr. 8vo. 15 pp.

- DÖLP (H.). Grundzüge und Aufgaben der Differential- und Integralrechnung nebst den Resultaten, neu bearbeitet von E. Netto. 13te Auflage. Giessen, A. Töpelmann, 1912. 8vo. 3+216 pp.
- GRODSKIJ (G. D.). Integral calculus. Part 1: Integration of functions. 3d edition. (In Russian.) St. Petersburg, 1912. 8vo. 1+165 pp.
- HEINRICHS (G.). Übungsbuch der Analysis der Infinitesimalen. Herausgegeben von A. Suworin. St. Petersburg, 1912. 8vo. 2+136 pp.
- MEHLER (F. G.). Hauptsätze der Elementar-Mathematik zum Gebrauche an höheren Lehranstalten. Bearbeitet von A. Schulte-Tiggés. Ausgabe B, Oberstufe. 3ter Teil: Grundzüge und Anwendung der Differentialrechnung. 2te Auflage. Berlin, Reimer, 1912. 7+84 pp.
- MUSOTTER (R.). Eine Skizze der Geschichte der Infinitesimalrechnung. Progr. Wien, 1912. 8vo. 21 pp.
- NETTO (E.). See DÖLP (H.).
- NIELSEN (N.). Elementar Talteori. Kopenhagen, Gyldendal, 1912. 8vo. 144 pp.
- ROTSCHIN (P.). Textbook of the differential and integral calculus. Part 1: Differential calculus; Part 2: Integral calculus. (In Russian.) St. Petersburg, 1911-1912. 4+730+2+508 pp.
- SCHULTE-TIGGES (A.). See MEHLER (F. G.).
- SUWORIN (A.). See HEINRICHS (G.).
- VILLANI (N.). L'equazione di Fermat $x^n + y^n = z^n$ con dimostrazione generale. Lanciano, Masciangelo, 1912. 8vo. 21 pp.
- WELMIN (W. P.). On the theory of remainders of the eighth degree in the algebraic number fields. (In Russian.) Warsaw, 1912. 8vo. 21+229 pp.

II. ELEMENTARY MATHEMATICS.

- AMMERMAN (C.). See FORD (W. B.).
- BERTRAND (G.). Trattato di algebra elementare. Prima traduzione italiana con note ed aggiunti di E. Betti. Nuova edizione per cura di A. Soggi. 15a impressione. Firenze, Le Monnier, 1912. 16mo. 7 + 531 pp.
- BETTI (E.). See BERTRAND (G.).
- BRABANT (F. G.). See MARCON (C. A.).
- CAMMAN (P.) et FASSBINDER (L.). Algèbre et géométrie. Classe de 3e A. Paris, Gigord, 1912. 18mo. 87 pp.
- CHOPE (R. H.). Junior arithmetic (with answers). London, University Tutorial Press, 1912. 8vo. 8+393 pp.
- DEKKER (P.). See NIEMÖLLER (F.).
- DOLGUSCHIN (P. A.). Approximations. For gymnasia, Realschulen, trade and technical schools. Revised by the author. 2d edition. (In Russian.) Kieff, 1912. 8vo. 46 pp.
- FASSBINDER (L.). See CAMMAN (P.).
- FISHER (G. E.) and SCHWATT (I.). Quadratics and beyond. Reprint. New York, Macmillan, 1914. 12mo. 287 pp. \$0.90
- . Complete secondary algebra. 2d reprint. New York, Macmillan, 1912. 12mo. 504 pp. \$1.35

- FORD (W. B.) and AMMERMAN (C.). Plane and solid geometry, edited by E. R. Hedrick. Reprinted with corrections. New York, Macmillan, 1914. 12mo. 321 pp. \$1.25
- FRENZEL (C.). See MEHLER (G.).
- FRIEDMANN (W. G.). Textbook of theoretical arithmetic. For upper classes of the boys' and girls' gymnasia and Realschulen and for private study. (In Russian.) Moscow, 1912. 8vo. 138 pp.
- HEDRICK (E. R.). See FORD (W. B.).
- JACOB (J.). Lehrbuch der Arithmetik für Mädchenlyzeen und verwandte Anstalten. 1ter Teil: Lehrstoff der 1ten und 2ten Klasse. Wien, F. Deuticke, 1912. 8vo. 3+110 pp.
- . Manuale d'aritmetica per la prima classe delle scuole medie. Versione di R. Marussig. Triest, M. Quidde, 1912. 8vo. 3+64 pp.
- JACOB (J.) and SCHIFFNER (F.). Lehrbuch der Arithmetik und Geometrie für Realschulen. Wien, F. Deuticke, 1912. 8vo. 64 pp.
- JACOB (J.), SCHIFFNER (F.) und TRAVNIČEK (J.). Arithmetik und Geometrie für Gymnasien und Realgymnasien. Analytische Geometrie der Ebene bearbeitet von J. Travníček. Wien, F. Deuticke, 1912. 8vo. 4+115 pp.
- MARCON (C. A.) and BRABANT (F. G.). Responsions papers in stated subjects (exclusive of books), 1906-1911. With answers to mathematical questions and introduction to mathematics, grammar, . . . Oxford, Clarendon Press, 1912. 160 pp.
- MARINO (A.). Applicazioni algebrache alla geometria piana e solida. Milano, 1914. 12mo. 32 pp.
- MARKOWITSH (B. A.). Elementary logarithms. (Elements of the theory of logarithms and of the practice in logarithmic computation.) (In Russian.) St. Petersburg, 1912. 8vo. 8+72 pp. The same with 4-place logarithm tables and samples of other logarithm tables. 8vo. 16+104 pp.
- MARUSSIG (R.). See JACOB (J.).
- MEHLER (F. G.). Hauptsätze der Elementar-Mathematik zum Gebrauche an höheren Lehranstalten. Bearbeitet von A. Schulte-Tiggens. Ausgabe B, Oberstufe. 2ter Teil: Arithmetik mit Einschluss der niederen Analysis, Trigonometrie und Stereometrie. Unter Mitwirkung von C. Frenzel bearbeitet. 2te unveränderte Auflage. Berlin, Reimer, 1912. 8vo. 8+169 pp.
- MÜLLER (O.). Tavole di logaritmi con cinque decimali. 12a edizione, aumentata della tavole dei logaritmi d'addizione e sottrazione, per cura di Michele Rajna. Milano, Hoepli, 1915. 24mo. 36+191 pp. L. 1.50
- NIEMÖLLER (F.) und DEKKER (P.). Arithmetisches und algebraisches Unterrichtsbuch. In 4 Heften. 1tes und 2tes Heft. Breslau, F. Hirt, 1912. 92+116 pp.
- OPENSHAW (P. A.). Public school examination papers in mathematics. With answers. London, Bell, 1912. 135 pp.
- PENDLEBURY (C.). A preparatory arithmetic. London, Bell, 1912. 14+185+30 pp.
- RAJNA (M.). See MÜLLER (O.).

- RASCHEVSKY (K.). Elementary algebra. Textbook for higher schools. (In Russian.) Moscow, 1912. 8vo. 301+3 pp.
- SALOMON (A.). Lecons d'algèbre. 7e édition. Paris, Vuibert, 1912. 16mo. 267 pp.
- SCHIFFNER (F.). See JACOB (J.).
- SCHULTE-TIGGES (A.). See MEHLER (F. G.).
- SCHULTZE (A.). Advanced algebra. 11th reprint. New York, Macmillan, 1913. 12mo. 562 pp. Half leather. \$1.25
- SCHWATT (I.). See FISHER (G. E.).
- SOCCHI (A.). See BERTRAND (G.).
- TRAVNÍČEK (J.). See JACOB (J.).
- VAN DER HEYDEN (A. F.). Notes on algebra. Middleborough, W. Apple-
yard, 1912. 8+133 pp.

III. APPLIED MATHEMATICS.

- ARMSTRONG (H. F.). Descriptive geometry for students of engineering science and architecture. New York, Wiley, 1915. 8vo. 6+125 pp. \$2.00
- BERLINER (S.). Renten und Anleihen. Leipzig, C. E. Poeschel, 1912. 8vo. 10+142 pp.
- BRAGG (W. H. and W. L.). X rays and crystal structure. London, Bell, 1915. 8vo. 7s. 6d.
- BRAGG (W. L.). See BRAGG (W. H.).
- CALENDARIO astronomico delle colonie italiane d'Affrica per l'anno 1915. (Istituto geografico militare.) Firenze, tip. Barbèra, di Alfani e Venturi, 1914. 8vo. 73 pp.
- CALENDARIO del r. osservatorio astronomico di Napoli per l'anno 1915. Napoli, 1915. 16mo. 75 pp.
- DRURY (F. E.). Geometry of building construction. Second year course. London, Routledge, 1915. 8vo. 3s.
- EDWARDS (E. J.) and TICKLE (M. J.). Practical science and mathematics for the second year preliminary technical or industrial course. London, Routledge, 1915. 8vo. 8+175 pp. 1s. 6d.
- ELDERTON (W. P.) and FIPPARD (R. C.). The construction of mortality and sickness tables. London, Macmillan, 1914. 12mo. 120 pp. \$0.80
- FERRARIO (L.). Studi di meccanica molecolare. Milano, Hoepli, 1915. 8vo. 165 pp. L. 4.50
- FIPPARD (R. C.). See ELDERTON (W. P.).
- FOSCHI (R. C.). Una facile deduzione del teorema dei tre momenti. Città di Castello, S. Lapi, 1914. 8vo. 8pp.
- LOMBARDI (L.). Corso teorico-pratico di elettrotecnica. 2a edizione. Vol. II. Milano, 1914. 8vo. 12+718 pp.+5 tables. L. 20.00
- MAGGI (G. A.). Geometria del movimento. Lezioni di cinematica con un'appendice sulla geometria della massa. 1915. 8vo. L. 8.00
- TICKLE (M. J.). See EDWARDS (E. J.).