

and accurate. The writer has, as is indicated in the preface, succeeded in writing a "compact" and "to the point" book.

WM. HOSKINS.

THE BECQUEREL RAYS AND THE PROPERTIES OF RADIUM. By R. J. STRUTT. New York: Longmans, Green & Co.; London: Edward Arnold. 1906. 8vo. Second edition, viii+215 pp.

The new edition differs but slightly from the first, which appeared two years earlier. A number of eliminations and additions have been made in order to bring the book into accord with more recent views; the size of the volume remains unchanged. A few misprints and erroneous or objectionable statements persist from the first edition. Thus, it is stated, p. 29, that thorium has the heaviest atom of any known element. On p. 67, the velocities of the cathode rays as given in the table should be multiplied by 10^{10} . On p. 30 we read "for, if there is any scientific doctrine which is established by experience, it is that the amount of energy in the universe remains strictly the same at all times." This oft-repeated, extravagant substitute for the first law of energetics is neither "scientific" nor "established by experience." It is purely a transcendental, metaphysical dictum. The reviewer's high opinion of the book was fully expressed in the review of the first edition.¹

HERBERT N. MCCOY.

RECENT PUBLICATIONS.

A TEXT-BOOK OF SANITARY AND APPLIED CHEMISTRY, OR THE CHEMISTRY OF WATER, AIR AND FOOD. By Edgar H. Summerfield Bailey. New York: Macmillan. 1906. 20+345 pp. \$1.40.

CHEMISTRY OF THE ALBUMENS: TEN LECTURES DELIVERED IN THE PHYSICAL DEPARTMENT OF UNIVERSITY COLLEGE, LONDON. By S. Barnett Schryver. Philadelphia: P. Blakiston's Son & Co. 1906. 5+192 pp. \$2.00.

MODERN SOAPS, CANDLES AND GLYCERIN. PRACTICAL MANUAL OF MODERN METHODS OF UTILIZATION OF FATS AND OILS IN MANUFACTURE OF SOAPS AND CANDLES, AND OF THE RECOVERY OF GLYCERIN. By L. Lloyd Lamborn. London: Lockwood. 1906. 708 pp. 301.

MODERN DAIRY-FARMING. PRACTICAL HANDBOOK ON THE MANAGEMENT OF MILCH COWS AND THE PROFITABLE UTILIZATION OF MILK. By H. L. Puxley. London: U. Gill. 1906. 244 pp. 316.

CATECHISM ON PRODUCER GAS. By S. S. Wyer. London: Spon. 1906. 416.

¹ This Journal, 27, 324 (1905).

REPORT OF PRINCIPAL CHEMIST ON WORK OF GOVERNMENT LABORATORY. London: Wyman. 1906. 13.

LESSONS IN SCIENCE: A PRELIMINARY COURSE OF PHYSICS AND CHEMISTRY. By R. Arman Gregory and Arthur T. Simmons. N. Y.: Macmillan & Co. 1906. 8+399 pp. \$0.90.

AN INTRODUCTION TO CHEMICAL CRYSTALLOGRAPHY: AUTHORIZED TRANSLATION BY HUGH MARSHALL. By P. Groth. New York: John Wiley & Sons. 1906. 7+123 pp. \$1.25.

EXAMINATION OF WATER (CHEMICAL AND BACTERIOLOGICAL). By W Pitt Mason. Third revised edition. New York: John Wiley & Sons. 1906. 6+123 pp. \$1.25.

GIFTVERKAUF-BUCH FÜR APOTHEKER UND DROGISTEN. ... By H. Böttger. Third edition. Berlin: J. Springer. 1906. 40 pp. Marks 3.-

DER CHEMISCHE UNTERRICHT AN DER SCHULE UND DER HOCHSCHULUNTERRICHT FÜR DIE LEHRER DER CHEMIE. By C. Duisberg. Leipzig: O. Spamer. 1906. 48 pp. Marks -.80.

LE COTON: CULTURE, PRÉPARATION, COMMERCE. By A. Lalière. Paris: A. Challamel. 10 francs.

PRINCIPES THÉORIQUES DE MÉTHODES D'ANALYSE MINÉRALE FONDÉES SUR LES RÉACTIONS CHIMIQUES. By G. Chesneau. Paris: H. Dunod et E. Pinat. 244 pp. 4 fr. 50.

LES SUCRES: LE CACAO, LE CAFÉ, LE THÉ, LE CHOCOLAT. By Girard. Paris: J. B. Baillière. 1906. 96 pp. 1 fr. 50.

NOTES ON QUALITATIVE ANALYSIS. CONCISE AND EXPLANATORY. By H. J. H. Fenton. Revised edition. Cambridge: Cambridge University. 1906. 156 pp. 61.

GALVANIC CELLS PRODUCED BY THE ACTION OF LIGHT. CHEMICAL STATICS AND THE DYNAMICS OF REVERSIBLE AND IRREVERSIBLE SYSTEMS UNDER THE INFLUENCE OF LIGHT. By M. Wilderman. London: Dulau. 1906. 316.

A MANUAL OF QUALITATIVE ANALYSIS AND OF MEDICAL CHEMISTRY FOR PHYSICIANS AND STUDENTS. By C. Platt. Fifth edition. Philadelphia: John Jos. McVey. 1906. 9+243 pp. \$2.00.

METALLURGY OF CAST IRON: A COMPLETE EXPOSITION OF THE PROCESSES INVOLVED IN ITS TREATMENT CHEMICALLY AND PHYSICALLY, FROM THE BLAST FURNACE TO THE TESTING MACHINE. By T. Dyson West. Tenth edition. Cleveland: Cleveland Printing & Publishing Co. 1906. 20+627 pp. \$3.00.

RADIOAKTIVITÄT UND DIE KONSTITUTION DER MATERIE. By F. Himstedt. Freiburg i/B: Speyer & Kaerner. 1906. 31 pp. Marks -.90.

SECHS VORTRÄGE ÜBER DAS THERMODYNAMISCHE POTENTIAL UND SEINE ANWENDUNGEN AUF CHEMISCHE UND PHYSIKALISCHE GLEICHGEWICHTS-PROBLEME. By J. J. van Laar. Braunschweig: F. Vieweg & Sohn. 1906. 8+119 pp. Marks 3.50. (Bound, Marks 4.20.)

PRÉCIS D'ANALYSE CHIMIQUE QUANTITATIVE DES SUBSTANCES MINÉRALES. By C. Friedheim. Paris: Ch. Béranger. 1906. 18 fr.

THE ANALYSIS AND SOFTENING OF BOILER FEED-WATER. By Edmund and Fritz Wehrenfennig. Translated by D. W. Patterson. Second edition revised. New York: John Wiley & Sons. 1906. 14+290 pp. \$4.00.

DIE EXPLOSIONSURSACHEN VON ACETYLEN. By N. Caro. Berlin: (L. Simion Nf.) 1906. 79 pp. Marks 3.-

ANLEITUNG ZUR FABRIKATION DES WEISSBIERES UND ZUR EINRICHTUNG EINES PRAKTISCHES BETRIEBES. By G. K. Lautenbacher. München: Seitz und Schauer. 1906. 66 pp. Marks 5.-

MODERN METHODS OF TESTING MILK. By L. L. van Slyke. London: K. Paul. 1906. 41.-

TECHNICAL METHODS OF ORE ANALYSIS. By Albert Howard Low. Second edition revised and enlarged. New York: J. Wiley & Sons. 1906. 12+277 pp. \$3.00.

SCIENCE YEAR BOOK WITH ASTRONOMICAL, PHYSICAL AND CHEMICAL TABLES. SUMMARIES OF PROGRESS IN SCIENCE, DIRECTORY AND DIARY FOR 1906. By B. F. S. Baden-Powell. London: Van Nostrand. 1906. 367 pp. \$2.00.

CANE JUICE DEFECACTION. By W. L. Bass. Translated by S. F. De Valasco. Brooklyn: Van Nostrand. 1905. 206 pp. \$3.00.

MANUFACTURE OF VARNISHES AND KINDRED INDUSTRIES. BASED ON AND INCLUDING THE "DRYING OILS AND VARNISHES" OF ACH. LIVACHE. By J. G. McIntosh. Second greatly revised English edition. Vol. 1, Oil Crushing, Refining and Boiling, Manufacture of Linoleum. .. London: Van Nostrand. 1904. 153 pp. \$3.50.

REPORT OF THE COMMITTEE ON STANDARD METHODS OF WATER ANALYSIS TO THE LABORATORY SECTION OF THE AMERICAN PUBLIC HEALTH ASSOCIATION. Presented at the Havana Meeting, January 9, 1905. Chicago: Van Nostrand. 1905. 141 pp. \$1.25.

CONDUCTIVITY OF LIQUIDS: METHODS, RESULTS, CHEMICAL APPLICATIONS AND THEORETICAL CONSIDERATIONS. By O. F. Tower. Easton, Pa.: Van Nostrand. 182 pp. \$1.50.

MICROSCOPY OF VEGETABLE FOODS WITH SPECIAL REFERENCE TO THE DETECTION OF ADULTERATION AND THE DIAGNOSIS OF MIXTURES. By A. L. Winton. New York: Van Nostrand. 1906. 701 pp. \$7.50.

THE NATURE OF ORE DEPOSITS. By Richard Beck. Translated and revised by Walter Harvey Weed. New York: Van Nostrand. 2 vols. \$8.00.

PUBLIC WATER SUPPLIES. REQUIREMENTS, RESOURCES AND THE CONSTRUCTION OF WORKS. By F. E. Turneaure. Phila.: Phila. Book Co. 14+746 pp. \$5.00.

SMOKELESS POWDER. NITRO-CELLULOSE, AND THEORY OF THE CELLULOSE MOLECULE. By John B. Bernadou. Phila.: Phila. Book Co. 8+200 pp. \$2.50.

CAST IRON. A RECORD OF ORIGINAL RESEARCH. By William J. Keep. Phila.: Phila. Book Co. 13+225 pp. \$2.50.

CRYSTALLIZATION OF IRON AND STEEL. By J. W. Mellor. New York: J. Wiley & Sons. 1906. \$1.60.

MICROSCOPIC ANALYSIS OF METALS. By F. Osmond. Second edition. New York: J. Wiley & Sons. 1906. \$2.25.

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TECHNOLOGY OF PAINT AND VARNISH. By Alvah H. Sabin. New York: J. Wiley & Sons. 1906. \$3.00.

AUSFÜHRLICHES HANDBUCH DER ZUCKERFABRIKATION. By A. Rünpler. Braunschweig: F. Vieweg & Sohn. 1906. Marks 15.-

PHOTOGRAPHIC CHEMISTRY. Edited by Paul Hasluck. London: Cassell. 1906. 160 pp. 11.

ELEMENTARY CHEMISTRY. PROGRESSIVE LESSONS IN EXPERIMENT AND THEORY. By F. R. L. Wilson and G. W. Hedley. Part 2. London: Frowde. 1906. 402 pp. 51.

GENERAL PRINCIPLES OF ORGANIC SYNTHESSES. By Petr Petrovich Aleksieev. Authorized translation with revision and additions, by J. Merritt Matthews. New York: J. Wiley & Sons. 1906. 246 pp. \$3.00.
