

supplemental materials will be needed in order to give satisfactory instruction in crystal optics to students in ceramic engineering. In contrast to this omission are the extensive applications that are discussed and the many helpful hints that are given on how to proceed—for example, those contained in Chapter 4, "Preparation of materials for microscopic examination." Here the authors describe a somewhat complicated gadget for selecting mineral grains under the microscope, but they do not mention the artist's brush moistened with saliva that has been used to select microfossils for many years. Separate chapters consider raw materials, whitewares, refractories, glass, cements, porcelain enamels, structural clay products, foundry sands, and slags. H. N. Baumann, Jr., contributed a chapter on abrasives.

An amusing inconsistency is the spelling of the plural of *alkali*. On page 71 it appears more than once as *alkalies*, whereas on page 88 and elsewhere, *alkalis* is used. The pronunciation of the latter spelling should rhyme with kiss, this, and appendicitis; it is objectionable. I was mildly surprised to learn that my former colleagues and I (p. 196) do not adhere to the osmotic theory for expansion of concrete during alkali-aggregate reaction. Comparisons of our calculated and measured pressures were offered by us as evidence that osmosis is involved. The spelling of forsterite is in error on page 146, under Fig. 8.17, and pseudowollastonite is hyphenated in about half of its appearances. Despite other trivial defects, the arrangement and presentation are excellent.

Mineralogists and petrographers will find this book extremely useful in connection with the examination of raw materials and fired products. Persons engaged in research or development of ceramic materials will find it invaluable.

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New Books

Handbook of Vital Statistics Methods. Ser. F, No. 7, *Studies in Methods*. Statistical Office of the United Nations, New York, 1955. 258 pp. \$2.50.

Nuclear Magnetic Resonance. E. R. Andrew. Cambridge Univ. Press, New York, 1955. 265 pp. \$6.50.

An Introduction to Botany. Arthur W. Haupt. McGraw-Hill, New York, ed. 3, 1956. 447 pp. \$5.50.

Science and Modern Life. E. John Russell. Philosophical Library, New York, 1955. 101 pp. \$2.75.

Principles of Physical Metallurgy. Morton C. Smith. Harper, New York, 1956. 417 pp. \$6.

Advances in Food Research. vol. VI. E. M. Mrak and G. F. Stewart, Eds. Academic Press, New York, 1955. 397 pp. \$9.

The Role of Algae and Plankton in Medicine. Morton Schwimmer and David Schwimmer. Grune & Stratton, New York-London, 1955. 85 pp. \$3.75.

Relativity: The Special Theory. J. L. Synge. North-Holland, Amsterdam; Interscience, New York, 1956. 450 pp. \$10.50.

Plane Waves and Spherical Means Applied to Partial Differential Equations. Interscience, New York-London, 1955. 172 pp. \$4.50.

Chemical Pilot Plant Practice. Donald G. Jordan. Interscience, New York-London, 1955. 152 pp. \$3.50.

The New Astronomy. 243 pp. *Automatic Control*. 148 pp. *Atomic Power*. 180 pp. *The Physics and Chemistry of Life*. 270 pp. *First Book of Animals*. 240 pp. Editors of *Scientific American*. Simon and Schuster, New York (reprinted from *Scientific American*), 1956. Paper, \$1 each.

Soil Physics. L. D. Baver. Wiley, New York; Chapman & Hall, London, ed. 3, 1956. 489 pp. \$7.75.

Index to the Year Books and Regional Papers of the American Iron and Steel Institute. Compiled by Jeanne McHugh. Univ. of Oklahoma Press, Norman, 1955. 593 pp. \$12.50.

Philosophical Writings of Peirce. Justus Buchler, Ed. Dover, New York 10 (unaltered and unabridged republication of *The Philosophy of Peirce: Selected Writings*, Routledge and Kegan Paul, 1940), 1955. 388 pp. Cloth, \$4.50; paper, \$1.95.

Ludwig Boltzmann, Mensch, Physiker, Philosoph. Engelbert Broda. Deuticke, Vienna, 1955. 152 pp.

Judaism and Psychiatry. Two approaches to the personal problems and needs of modern man. Simon Noveck, Ed. National Acad. for Adult Jewish Studies, United Synagogue of America, New York, 1956. 197 pp. Paper, \$2.50.

Vascular Surgery in World War II. Daniel C. Elkin and Michael E. DeBakey, Eds. Historical Unit, Army Medical Service, Washington, 1955 (Order from Supt. of Documents, GPO, Washington 25). 465 pp. \$4.25.

The Sun and Its Influence. An introduction to the study of solar-terrestrial relations. M. A. Ellison. Macmillan, New York, 1956. 235 pp. \$4.50.

The Blood-Brain Barrier with Special Regard to the Use of Radioactive Isotopes. Louis Bakay. Thomas, Springfield, Ill., 1956. 154 pp. \$5.50.

The Dynamics of Living Protoplasm. L. V. Heilbrunn. Academic Press, New York, 1956. 327 pp. \$6.50.

Principles of Organic Chemistry. An introductory text in organic chemistry. James English, Jr., and Harold G. Cassidy. McGraw-Hill, New York, ed. 2, 1956. 469 pp. \$6.50.

Distillation in Practice. A collection of papers originally presented in Philadelphia, Pa., in May, 1954, under the auspices of the Philadelphia-Wilmington Section of the American Institute of Chemical Engineers and the Department of Chemical Engineering, University of Pennsylvania. Charles H. Nielsen, Ed. Reinhold, New York; Chapman & Hall, London, 1956.

Miscellaneous Publications

(Inquiries concerning these publications should be addressed, not to Science, but to the publisher or agency sponsoring the publication.)

National Society of Professional Engineers, Annual Report, 1954-1955. A report to the membership. The Society, Washington, 1955. 24 pp.

Bulletin Climatologique Annuel du Congo Belge et du Ruanda-Urundi Année 1954. Bureau Climatologique, Communication No. 10. Institut National pour l'Etude Agronomique du Congo Belge, Bruxelles, 1955. 161 pp. F. 120.

Abatement of Highway Noise and Fumes. Highway Research Bd. Bull. 110. National Acad. of Sciences-National Research Council, Washington, 1955. 47 pp. \$0.90.

Rubber Rolls. Rodney Hunt Machine Co., Orange, Mass., 1955. 59 pp. \$2.

Some Conditions Affecting Quality, Consistency, and Predictability of Performance in Solving Complex Problems. Research Rept. AFPTRC-TN-55-27. Project No. 7703, Task Nos. 77071 and 77973. Robert M. W. Travers, Joseph E. Marron, and Andrew J. Post. 86 pp. *Some Correlates of Instructor Job Satisfaction*. Research Rept. AFPTRC-TN-55-28. Project No. 7731, Task No. 77427. John T. Lanzetta and Dorothy M. Knoell. 49 pp. Air Force Personnel & Training Research Center, Lackland Air Force Base, San Antonio, Tex., 1955.

Spectrochemical Abstracts, 1946-1951. vol. IV. Ernest H. S. van Someren and F. Lachman. Hilger & Watts, London, 1955. 179 pp. \$5.75.

Life History and Cytology of the Foraminiferan Allogromia Laticollaris. Publ. in Zoology, vol. 61, No. 4. Zach M. Arnold. 86 pp. \$1.25. *Planned Migration, the Social Determinants of the Dutch-Canadian Movement*. Publ. in Sociology and Social Institutions, vol. 2. William Petersen. 273 pp. \$3.50. Univ. of California Press, Berkeley, 1955.

A Study of African Chironomidae. pt. 1. Bull. of the British Museum (Natural History) Entomology, vol. 4, No. 1. Paul Freeman. 68 pp. 15s. *The Heterophilous Selaginellae of Continental North America*. Bull., Botany, vol. 1, No. 8. A. H. G. Alston. 55 p. 16s. *Mosses of Dominica, British West Indies and Mosses of the Ecuadorian Andes Collected by P. R. Bell*. Bull., Botany, vol. 2, No. 2. Edwin B. Bartram. 30 pp. 6s. British Museum (Natural History), London, 1955.

New York University, College of Engineering, Research Division Annual Report, 1955. New York Univ., New York, 1955. 36 pp.

Education Directory. pt. 4, *Education Associations, 1954-55*. 56 pp. \$0.25. *Clerical and Custodial Staff in Public Secondary Day Schools*. Circular No. 445. Ellsworth Tompkins and Mabel C. Rice. 83 pp. \$0.55. U.S. Office of Education, Washington 25, 1955 (Order from Superintendent of Documents, GPO, Washington 25).

Control of Insect Vectors in International Air Traffic. A survey of existing legislation. World Health Organization, Geneva, 1955. 59 pp. \$0.70.