

The chapter on the major nonferrous metals—copper, aluminum, zinc, lead, nickel, and tin—gives the reader a brief description of present practices as well as a glimpse of the developments leading up to them. The chapter on uranium, titanium, germanium, and cobalt is well done and will interest those who are unfamiliar with these newcomers to the metallurgical scene. Gold, silver, and the platinum group are discussed last, and a brief historical treatment is followed by a review of their recovery, refining, and usage.

The final chapters—one on shaping of metals and the other on metallography—could well have been omitted; they are too brief to be of much value even to those who are unfamiliar with the field of metallurgy. For instance, the history and practice of rolling of metals is outlined in some four pages whereas nearly equal space is given to extrusion. Although the author devotes only ten pages to metallography, he does give an interesting account of the early work of Sorby in England and an account of the interchange of ideas with America, France, and Germany which led to the production of the first iron carbon constitution diagram, by Roberts-Austen, in 1896.

The beginning student of metallurgy should find this book of great interest and a ready source of reference. In addition to an excellent index, each chapter is followed by a short bibliography, and a brief glossary provides definitions of the more unusual metallurgical terms.

B. R. QUENEAU

*U.S. Steel Corporation,
525 William Penn Place,
Pittsburgh, Pennsylvania*

New Books

Advances in Child Development and Behavior. vol. 1. Lewis P. Lipsitt and Charles C. Spiker, Eds. Academic Press, New York, 1963. 401 pp. Illus. \$12. Nine papers: "Responses of infants and children to complex and novel stimulation," by Gordon N. Cantor; "Word associations and children's verbal behavior," by David S. Palermo; "Change in the stature and body weight of North American boys during the last 80 years," by Howard V. Meredith; "Discrimination learning set in children," by Hayne W. Reese; "Learning in the first year of life," by Lewis P. Lipsitt; "Some methodological contributions from a functional analysis of child development," by Sidney W. Bijou and

Donald M. Baer; "The hypothesis of stimulus interaction and an explanation of stimulus interaction and an explanation of stimulus compounding," by Charles C. Spiker; "The development of 'overconstancy' in space perception," by Joachim F. Wohlwill; and "Miniature experiments in the discrimination learning of retardates," by Betty J. House and David Zeaman.

Advances in Psychoanalysis. Contributions to Karen Horney's holistic approach. Harold Kelman, Ed. Norton, New York, 1964. 255 pp. \$5. Nine papers: "On feeling abused" and "The paucity of inner experiences," by Karen Horney; "Character development in young children," by Norman Kelman; "A unitary theory of anxiety," by Harold Kelman; "The body's participation in dilemma and anxiety phenomena," Alexander R. Martin; "Some aspects of sex in neuroses," by Frederick A. Weiss; "Neurotic guilt and health moral judgment," by Muriel Ivimey; "A psychoanalytic understanding of suicide," by E. Kilpatrick; "Karen Horney on psychoanalytic technique," by M. B. Cantor, E. A. Metzger, and R. Slater.

Assimilation in American Life. The role of race, religion, and national origins. Milton M. Gordon. Oxford Univ. Press, New York, 1964. 286 pp. Illus. \$5.25.

Cognition: Theory, Research, Promise. Papers read at the Martin Scheerer memorial meetings on cognitive psychology (Lawrence, Kan.), May 1962. Constance Sheerer, Ed. Harper and Row, New York, 1964. 240 pp. Illus. \$4.

Concepts of Insanity in the United States, 1789-1865. Norman Dain. Rutgers Univ. Press, New Brunswick, N.J., 1964. 320 pp. \$9.

The Encapsulated Man. An interdisciplinary essay on the search for meaning. Joseph R. Royce. Van Nostrand, Princeton, N.J., 1964. 218 pp. Illus. Paper, \$1.95.

Essays on Ego Psychology. Selected problems in psychoanalytic theory. Heinz Hartmann. International Universities Press, New York, 1964. 508 pp. \$10. Twenty papers. The first part consists of 16 chronologically arranged papers written and published between 1939 and 1959; the second contains some papers published earlier "whose primary concern was not with the development of analytic theories, but which still, in one way or another, seem to . . . contribute to it." The four papers in part 2 are translations of papers originally published in German.

Familienbeziehung und Freizeitgewohnheiten jugendlicher Arbeiter. Leopold Rosenmayr. Verlag für Geschichte und Politik, Vienna, Austria, 1963. 450 pp. Illus.

The Field of Consciousness. Aron Gurwitsch. Duquesne Univ. Press, Pittsburgh; Nauwelaerts, Louvain, Belgium, 1964. 441 pp. \$7.95.

Formulaire Technique d'Anthropologie. Les determinations anthropologiques en osteologie exclusivement. Leurs definitions, leurs techniques, leurs resultats. Patrick Braun. Lechevalier, Paris, 1963. 262 pp. Illus. \$4.20.

A Guadalcanal Society. The Kaoka speakers. Ian Hogbin. Holt, Rinehart, and Winston, New York, 1964. 113 pp. Illus. Paper, \$1.50.

Die Homosexualität Beim Mann. Kurt Freund. Hirzel, Leipzig, 1963. 285 pp. Illus. DM. 18.50.

Horizons of Anthropology. Sol Tax, Ed. Aldine, Chicago, 1964. 288 pp. \$5.

Human Behavior. An inventory of scientific findings. Bernard Berelson and Gray A. Steiner. Harcourt, Brace, and World, New York, 1964. 736 pp. Illus. \$11.

Human Fertility and Population Problems. Proceedings of a seminar held under the auspices of the American Academy of Arts and Sciences (Brookline, Mass.) May 1963. Roy O. Greep, Ed. Schenkman, Cambridge, Mass., 1964. 288 pp. Illus. Paper, \$2.65; cloth, \$7.45.

Hunger and Work in a Savage Tribe. A functional study of nutrition among the Southern Bantu. Audrey I. Richards. World, Cleveland, 1964. 254 pp. Paper \$1.75.

Industrial Creativity. The psychology of the inventor. Joseph Rossman. University Books, New Hyde Park, N.Y., ed. 3, 1964. 282 pp. \$7.50.

Interpersonality Synopsis. Donald D. Glad and Virginia B. Glad. Libra, New York, 1964. 188 pp. Illus. \$4.95.

Inventing the Future. Dennis Gabor. Knopf, New York, 1964. 254 pp. \$4.95.

Kapauku Papuan Economy. Leopold Pospisil. Yale Univ., New Haven, Conn., 1963. 502 pp. Illus. Plates. Paper, \$6.50.

The New Group Therapy. O. Hobart Mowrer. Van Nostrand, Princeton, N.J., 1964. 272 pp. Illus. Paper, \$1.95.

Primitive Views of the World. Stanley Diamond, Ed. Columbia Univ. Press, New York, 1964. 239 pp. Paper, \$1.75. A collection of 11 essays reprinted from *Culture in History: Essays in Honor of Paul Radin* [reviewed in *Science* 134, 1411 (1961) by E. A. Hoebel].

Psychiatry on the College Campus. H. G. Whittington. International Universities Press, New York, 1964. 336 pp. Illus. \$7.50.

The Psychoanalytic Study of the Child. vol. 18. Ruth S. Eisler, Anna Freud, Heinz Hartmann, and Marianne Kris, Eds. International Universities Press, New York, 1963. 662 pp. \$10. Twenty-three papers.

The Psychopath: An Essay on the Criminal Mind. William McCord and Joan McCord. Van Nostrand, Princeton, N.J., 1964 (revised and abridged version of *Psychopathy and Delinquency*, 1956). 235 pp. Paper, \$1.75.

Reference Groups. Exploration into conformity and deviation of adolescents. Muzafer Sherif and Carolyn W. Sherif. Harper and Row, New York, 1964. 384 pp. Illus. \$6.

The Roots of Consciousness. David C. McClelland. Van Nostrand, Princeton, N.J., 1964. 225 pp. Illus. Paper, \$1.95.

Social Choice and Individual Values. Kenneth J. Arrow. Wiley, New York, ed. 2, 1963. 136 pp. \$4.50.

Social Structure and Personality. Talcott Parsons. Free Press of Glencoe (Macmillan), New York, 1964. 384 pp. \$8.50. The 12 essays in this collection go back a little more than 10 years; the oldest among them is "The superego and the theory of social systems." Of it Parsons writes "This article seems to form a gen-

erally appropriate point of departure for the lines of thought which run through the whole collection; namely, the problem of theoretical formulation of the relations between the social system and the personality of the individual." The papers are divided in three sections: Theoretical Perspectives (5 papers); Stages of the Life Cycle (4 papers); and Health and Illness (3 papers). The bibliography (pp. 359-370) provides a chronologically arranged list of the author's publications, 1928 to 1963, including seven items "to be published."

Status, Integration, and Suicide. A sociological study. Jack P. Gibbs and Walter T. Martin. Univ. of Oregon Books, Eugene, 1964. 243 pp. Illus. \$8.

Structural Linguistics and Human Communication. An introduction into the mechanism of language and the methodology of linguistics. Bertil Malmberg. Academic Press, New York; Springer, Berlin, 1963. 218 pp. Illus. \$9.75.

The Study of Society: A Unified Approach. Alfred Kuhn. Richard D. Irwin and Dorsey Press, Homewood, Ill., 1963. 828 pp. Illus. \$12.

The Theory of Committees and Elections. Duncan Black. Cambridge Univ. Press, New York (reprint of 1958 edition), 1963. 256 pp. Illus. \$6.

Training the Psychiatrist to Meet Changing Needs. Report of a conference (Washington, D.C.), December 1962. Donald W. Hammersley *et al.*, Eds. American Psychiatric Assoc., Washington, D.C., 1963. 275 pp. \$3.

The Transparent Self. Self-disclosure and well-being. Sidney M. Jourard. Van Nostrand, Princeton, N.J., 1964. 208 pp. Illus. Paper, \$1.95.

When Caste Barriers Fall. A study of social and economic change in a South Indian village. Dagfinn Sivertsen. Universitetsforlaget, Oslo, Norway; Humanities Press, New York, 1963. 141 pp. Illus. \$4.

General

Biologist Philosopher. A study of the life and writings of Alfred Russel Wallace. Wilma George. Abelard-Schuman, New York, 1964. 334 pp. Illus. \$6.

The Butterflies of Southern Africa. pt. 3, *Nymphalidae: Acraeinae*. G. Van Son Transvaal Museum, Pretoria, Union of South Africa, 1963. 140 pp. Plates £5 5s.

Collegiate Dictionary of Zoology. Robert W. Pennak. Ronald, New York, 1964. 591 pp. \$8.50.

Downstream: A Natural History of the River. John Bardach. Harper and Row, New York, 1964. 288 pp. Illus. \$5.95.

Exploring the Sciences. Paul F. Brandwein, Alfred D. Beck, Violet Strahler, Leland G. Hollingworth, and Matthew J. Brennan. Harcourt, Brace, and World, New York, 1964. 686 pp. Illus. \$6.

Geographers and What They Do. William Wartz. Watts, New York, 1964. 159 pp. Illus. \$3.95 (juvenile).

God and Golem, Inc. A comment on certain points where cybernetics impinges on religion. Norbert Wiener. M.I.T. Press, Cambridge, Mass., 1964. 109 pp. \$2.95.

The Inner World of Mental Illness. A series of first-person accounts of what it

was like. Bert Kaplan, Ed. Harper and Row, New York, 1964. 479 pp. Paper, \$3.95.

Jan, My Brain-Damaged Daughter. Camilla M. Anderson. Durham, Portland, Ore., 1963. 198 pp. Paper, \$1.75.

Laboratory Explorations in General Zoology. Karl A. Stiles. Macmillan, New York, ed. 4, 1964. 351 pp. Illus. Paper, \$3.95.

Life Beyond the Earth. A study in exobiology. V. A. Firsoff. Basic Books, New York, 1964. 336 pp. Illus. \$7.50.

Marine Environment, Serial Atlas. Folio 5, *North American Sea Stars (Echinodermata: Asteroidea): From North Alaska to the Strait of Belle Isle*. Edward H. Grainger. American Geographical Soc., New York, 1964. 4 pp. 5 plates. \$6.50.

Masers and Lasers. H. Arthur Klein. Lippincott, Philadelphia, 1963. 184 pp. Illus. \$3.95.

Masers and Lasers. How they work, what they do. M. Brotherton. McGraw-Hill, New York, 1964. 223 pp. Illus. \$8.50.

Matter. Ralph E. Lapp and the Editors of *Life*. Time, New York, 1963. 200 pp. Illus. \$3.95.

Clerk Maxwell and Modern Science. Six commemorative lectures. C. Domb, Ed. Univ. of London Press, London, 1963. 128 pp. Illus. \$4.

Meet the Mammals. C. H. Keeling. Watts, New York, 1964. 246 pp. Illus. \$3.95.

Missiles, Moonprobes, and Megaparsecs. Willy Ley. New American Library, New York, 1964. 189 pp. Illus. Paper, 60¢.

Nautical Chart Manual. Practical guidance for cartographers and engineers engaged in constructing and revising nautical charts, emphasizing details of current practices as developed by the Coast and Geodetic Survey. Wallace A. Bruder, Ed. Coast and Geodetic Survey, Washington, D.C., ed. 6, 1963 (order from GPO, Washington, D.C.). 223 pp. Illus. \$6.75 (loose-leaf binder).

Oceanographic Vessels of the World. vol. 2. Compiled by Albert M. Bargeski and William H. Myers. U.S. Naval Oceanographic Office, Washington, D.C., 1963 (unpaged, loose-leaf binder). \$4.50. Contents: Descriptions of ships not described in volume 1 and photographs of many vessels described but not illustrated in that volume as well as an errata to volume 1 and several revisions about specific vessels described in the previous volume and a revised index of ships.

Philosophical Problems of Space and Time. Adolf Grünbaum. Knopf, New York, 1963. 420 pp. Illus. \$10.75.

Philosophy of Mathematics. Selected readings. Paul Benacerraf and Hilary Putnam, Eds. Prentice-Hall, Englewood Cliffs, N.J., 1964. 544 pp. Illus. \$8.95.

Science and Ideas. Selected readings. Arnold B. Arons and Alfred M. Bork, Eds. Prentice-Hall, Englewood Cliffs, N.J., 1964. 288 pp. Illus. Paper, \$3.95.

An anthology in which the editors have tried "to assemble material that would provide students in introductory science courses, or individuals with relatively little formal training in physical science, access to . . . views of the intellectual, philosophical, and humanistic content of scientific thought." The 15 papers include

selections from the writings of Percy Bridgman, Richard Feynman, Albert Einstein, C. C. Gillispie, and Gerald Holton.

Space in the Sixties. Patrick Moore. Penguin Books, Baltimore, Md., 1964. 218 pp. Illus. Paper, 95¢.

Sturgeon Hooks of Eurasia. Géza de Rohan-Csermak. Aldine, Chicago, Ill., 1964. 195 pp. Illus. Plates. \$6.

Sweet Madness. A study of humor. William F. Fry, Jr. Pacific Books, Palo Alto, Calif., 1963. 188 pp. Paper, \$1.95; cloth, \$3.95.

Teaching about Alcohol. Frances Todd. McGraw-Hill, New York, 1964. 240 pp. Illus. Paper, \$3.50; cloth, \$5.95.

Thinking with a Pencil. Henning Nelms. Barnes and Noble, New York (© 1957), 1964. 361 pp. Illus. Paper, \$1.95; cloth, \$4.95.

The Thunderstorm. Louis J. Battan. New American Library, New York, 1964. 128 pp. Illus. Paper, 60¢.

Transforming Traditional Agriculture. Theodore W. Schultz. Yale Univ. Press, New Haven, Conn., 1964. 226 pp. \$6.

Treatise on Light. In which are explained the causes of that which occurs in reflexion, and in refraction. And particularly in the strange refraction of Iceland crystal. Christiaan Huygens. Translated by Silvanus P. Thompson. Dover, New York (reprint of 1912 ed.), 1964. 140 pp. Illus. Paper, \$1.35.

Venezuelan Archaeology. Irving Rouse and José M. Cruxent. Yale Univ. Press, New Haven, Conn., 1963. 193 pp. Illus. \$7.50.

Alessandro Volta. And the electric battery. Bern Dibner. Watts, New York, 1964. 143 pp. Illus. \$2.95.

Waves and Beaches: The Dynamics of the Ocean Surface. Willard Bascom. Doubleday, Garden City, N.Y., 1964. 280 pp. Illus. Paper, \$1.45.

Weather Studies. L. P. Smith. Pergamon, London; Macmillan, New York, 1963. 106 pp. Illus. Paper, \$2.45.

The Web of the Spider. Laura Barr Lougee. Cranbrook Inst. of Science, Bloomfield Hills, Mich., 1964. 44 pp. Illus. \$3.50. An illustrated popularization.

When and How to Quit Smoking. Eustace Chesser. Emerson, New York, 1964. 126 pp. Illus. \$2.95.

Why Teach Physics? Based on discussions at an international conference (Rio de Janeiro, Brazil), July 1963. Sanborn C. Brown, Norman Clarke, and Jayme Tiomno, Eds. Published for the International Union of Pure and Applied Physics by the M.I.T. Press, Cambridge, Mass., 1964. 123 pp. Illus. \$3.50.

The World of Living Things. Paul F. Brandwein, Alfred D. Beck, Violet Strahler, Leland G. Hollingworth, and Matthew J. Brennan. Harcourt, Brace, and World, New York (© 1953), 1964. 512 pp. Illus. \$4.80.

The World of Matter-Energy. Paul F. Brandwein, Alfred D. Beck, Violet Strahler, Leland G. Hollingworth, and Matthew J. Brennan. Harcourt, Brace and World, New York (© 1953), 1964. 525 pp. Illus. \$5.

The Writing Requirements for Graduate Degrees. Paul E. Koefod. Prentice-Hall, Englewood Cliffs, N.J., 1964. 286 pp. \$4.50.