States' atomic energy program—to obtain experience with different, full-scale, atomic power plants in order to determine their economic potential. An incentive for atomic power, lacking in the United States, is the higher cost of fuel transportation, since the major use of electric power is in the European part of the U.S.S.R. while the major coal fields are in the East. It is clear that Russian engineers do not agree on the economic aspects of nuclear power any better than their Western counterparts. Nikolaev expects the large pressurized-water reactor to yield electricity at lower costs than coal fired stations, a statement contradicted by other spokesmen for the U.S.S.R.

The remaining papers include a sketch of the superheated-steam, uranium-graphite reactor. Cost figures for the fuel are taken from non-Soviet sources. Similarly, the paper on graphite in nuclear reactors leans heavily on non-Soviet sources of information. Finally, a paper by Novikov on the efficiency of atomic power stations makes the point that regenerative heating plays only a minor role in nuclear power plants compared with the role it plays in conventional steam plants.

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Bumblebees. John B. Free and Colin G. Butler. Macmillan, New York, 1959. xiv + 208 pp. Illus. $5.00.

This readable book, one of the latest (No. 40) in the 'New Naturalist' series, was first published in England. The authors are on the staff of the bee department at the Rothamsted Experimental Station.

In the opening chapters, Free and Butler discuss the bumblebees' life history, including such topics as the founding, growth, and decline of the colony, reproduction, the division of labor, and the enemies of the bumblebees. Subsequent chapters go more deeply into behavior and treat the collection and storage of nectar and pollen, flower relationships, and locality learning. The economic importance of bumblebees in the pollination of certain forage and fruit crops is covered in a separate chapter. The final chapter, "Bumblebees and their relatives," is somewhat mistitled, for almost all of it is devoted to a comparison of the habits of bumblebees with those of only one relative, the honey bee.

The book contains four appendixes. The first and second are treatises on the collection and study of bumblebee colonies and on how to start colonies in captivity. These will be very useful to anyone who wishes to study the behavior of these insects. The other two appendixes, by I. H. H. Yarrow of the British Museum (Natural History) will be of no interest to most American readers, because they contain keys to the British bumblebees and distributional notes on the British species.

Free and Butler are to be congratulated for this admirable compilation of the life history and behavior of bumblebees; the compilation is based on their own observations, as well as on the voluminous scientific literature devoted to these fascinating insects. Bumblebees are of more than ordinary interest because they belong to one of the few groups of insects which have evolved a social life. The enjoyable text is enhanced by Butler's excellent black-and-white photographs showing some of the details of life history and flower visits. The book is a worthy companion to Butler's earlier book in the same series, *The World of the Honeybee.*

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New Books

Germany Rejoins the Powers. Mass opinion, interest groups, and elites in contemporary German foreign policy. Karl W. Deutsch and Lewis J. Edinger. Stanford Univ. Press, Stanford, Calif., 1959. 336 pp. $6.50.

A Handbook for Dissectors. J. C. Boileau Grant. Williams & Wilkins, Baltimore, Md., ed. 5, 1959. 455 pp. $5.

Industrial Gums. Polysaccharides and their derivatives. Roy L. Whistler, Ed. Academic Press, New York, 1959. 777 pp. $25. Each chapter describes a specific gum. This description includes source, constancy of supply and composition, cost and cost variation, chemical structure and reactions, history, uses, derivatives and their uses, and physical properties, including those of its solutions, gels, and films.

Introduction to the Theory of Quantized Fields. N. N. Bogoliubov and D. V. Shirkov. Authorized English edition, revised and enlarged by the authors. Translated from the Russian by G. M. Volkoff. Interscience, New York, 1959. 736 pp. $17.

Introductory Nuclear Theory. L. R. B. Elton. Interscience, New York, 1959. 297 pp. $6.40.

Life and the Universe. Archibald G. Huntsman. Univ. of Toronto Press, Toronto, Canada, 1959. 122 pp. $3.

Metamorphosis. On the development of affect, perception, attention, and memory. Basic Books, New York, 1959. 352 pp. $6.

Nuclear Electronics. Proceedings of the international symposium on nuclear electronics organized by the French Society of Radioelectricians. International Atomic Energy Agency, Vienna, Austria, 1959 (order from International Publications, 801 Third Ave., New York). 464 pp. $4.

Numerical Methods for Nuclear Reactor Calculations. Gurii Ivanovich Marchuk. Translated from Russian. Consultants Bureau, New York, 1959. 295 pp. $60.

Reflexes to Intelligence. A reader in clinical psychology. Samuel J. Beck and Herman B. Molish. Free Press, Glencoe, Ill., 1959. 683 pp. $8.50.

Reprints

Albert Einstein: Philosopher-Scientist. vols. 1 and 2. Paul Arthur Schlipp. Harper, New York, 1959 (reprint of ed. 1, Tudor, 1949 and 1951). 781 pp. $1.95 each.

Ancient Science and Modern Civilization. George Sarton. Harper, New York, 1959 (reprint of ed. 1, Univ. of Nebraska Press, 1954). 111 pp. $0.95 This book reproduces in full the text of the three Montgomery lectures given by Sarton at the University of Nebraska in 1954. Titles of the lectures are "Euclid and his time," "Ptolemy and his time," and "The end of Greek science and culture."

Beyond Psychology. Otto Rank. Dover, New York, 1959 (reprint of ed. 1, 1941). 291 pp. $1.75.

New Pathways in Science. Sir Arthur Eddington. Univ. of Michigan Press, Ann Arbor, 1959 (reprint of ed. 1, Cambridge Univ. Press, 1934). 333 pp. $1.95. The Messenger lectures which Eddington delivered at Cornell University in 1934 are contained in this volume. Chapters 2 and 8 have been added; the other chapters correspond to the 12 lectures.

Out of the Sky. An introduction to meteoritics. H. H. Nininger. Dover, New York, 1959 (reprint of ed. 1, 1952). 356 pp. $1.85. Nininger, director of the American Meteorite Museum, describes famous meteorite landings and craters, and tells how to locate, identify, and preserve a meteorite that survives its fall through the atmosphere.

Science Since 1500. H. T. Pledge. Harper, New York, 1959 (reprint of ed. 1, Her Britannic Majesty's Stationery Office, London, 1939). 357 pp. $1.85. This short history of mathematics, physics, chemistry, and biology was described by A. R. Hall as "still the outstanding one-volume handbook for the history of science during the last four centuries. . . . For this period Mr. Pledge's book provides an encyclopedic wealth of information and ideas such as can be found nowhere else." Thomas S. Kuhn calls it "the most useful one-volume reference work in English for the general technical history of post-Newtonian science."