

Books of the Week

For the editorial information of our readers, books received for review since last week's issue are listed. For convenient purchase of any U. S. book in print, send a remittance to cover retail price (postage will be paid) to Book Department, Science Service, 1719 N Street, N. W., Washington 6, D. C. Request free publications direct from publisher, not from Science Service.

THE ACTINIDE ELEMENTS—Glenn T. Seaborg and Joseph J. Katz, Eds.—*McGraw-Hill*, 870 p., illus., \$11.75. A group of nuclear scientists present the chemistry of all the elements from actinium to the newly discovered trans-plutonium elements.

CATIONIC POLYMERISATION AND RELATED COMPLEXES—P. H. Plesch, Ed.—*Academic Press*, 166 p., illus., \$4.00. The conference reported here was devoted to a field that includes the problem of proton transfer and the ease of formation and stability of organic ions.

THE HARVEY LECTURES—James Bonner and others—*Academic Press Series XLVIII*, 273 p., illus., \$7.50. Contains also the constitution and lists of officers and members of the Harvey Society.

LABORATORY PRACTICE OF ORGANIC CHEMISTRY—G. Ross Robertson—*Macmillan*, 3d ed., 377 p., illus., \$4.00. This edition features a more extensive treatment of the principles underlying laboratory manipulations.

PAPER CHROMATOGRAPHY OF SOME ALKOXY ACIDS—John H. Nair, III—*Mellon Institute*, 1 p., paper, free upon request direct to publisher, 4400 Fifth Ave., Pittsburgh 13, Pa.

PLANT GENERA: Their Nature and Definition—G. H. M. Lawrence and others with an introductory essay on **GENERIC SYNOPSIS AND MODERN TAXONOMY** by Theodor Just—*Chronica Botanica*, Volume 14, Number 3, 70 p., illus., paper, \$2.00.

PROCEEDINGS OF THE FOURTH AMERICAN FOREST CONGRESS, October 29, 30 and 31, Wash-

ington, D. C.—*American Forestry Association*, 372 p., \$3.00. The meeting was opened by addresses by President Eisenhower and the president of the National Academy of Sciences.

PSYCHOLOGY IN THE NURSERY SCHOOL—Nelly Wolffheim—*Philosophical Library*, 144 p., \$3.75. The author believes that the nursery school should be run on psychoanalytical lines, and that it can be used as a source of material for psychoanalytical research.

SALT AND THE HEART—Edward T. Yorke—*Draphin*, 83 p., illus., \$3.45. Practical hints for the patient on a low sodium diet, or for his family, on how to avoid salt in foods not generally believed to contain it. Written by a physician in non-technical style.

SAVING CHILDREN FROM DELINQUENCY—D. H. Stott—*Philosophical Library*, 266 p., \$4.75. Intended to make available to parents and social workers what psychologists have learned about the emotional health of the child.

SHALLOW WATER DIVING AND SPEARFISHING—Hilbert Schenck, Jr. and Henry Kendall—*Cornell Maritime Press*, 251 p., illus., \$4.00. For the hobbyist, the professional and those just interested in the adventures to be found beneath the surface of the sea.

THE STRUCTURE AND MECHANICAL PROPERTIES OF COPPER-MANGANESE-TIN ALLOYS—J. C. Blade and J. W. Cuthbertson—*Tin Research Institute*, 10 p., illus., paper, free upon request direct to publisher, 492 West Sixth Ave., Columbus 1, Ohio. Describing new alloys that may be useful in fields hitherto served by nickel silver.

TELEVISION: A World Survey—*UNESCO (Columbia University Press)*, 184 p., illus., paper, \$1.75. Television is rapidly spreading to cover the globe. It is estimated that there is one television set for every 7.15 inhabitants in the United States, one for every 24 in Great Britain, and one for every 2,400 inhabitants in the Soviet Union.

TREATISE ON INVERTEBRATE PALEONTOLOGY: Part G, Bryozoa—Ray S. Bassler, Raymond C. Moore, Ed.—*Geological Society of America and University of Kansas Press*, 253 p., illus., \$3.00. Intended for beginners in the study of fossils as well as long-experienced professional workers.

UPPER PALEOZOIC OF PERU—Norman D. Newell, John Chronic and Thomas G. Roberts—*Geological Society of America, Memoir 58*, 276 p., illus., \$4.00. Paleozoic sedimentary rocks are probably more fully represented in the

Peruvian Andes than in other parts of South America. The fossils here described include 180 forms of invertebrates.

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HEMATOLOGY

Normal and Crazy Ideas Take Same Blood Amount

► **NORMAL AND** schizophrenic ideas come from brains that require the same amounts of oxygen, blood and sugar.

This knowledge is one of the results of a study of brain metabolism in different conditions now being carried on at the University of California School of Medicine, San Francisco, with the support of the Multiple Sclerosis Society.

Drs. Gilbert Gordan, Richard C. Bentinck and John E. Adams presented results of some of their research at the meeting of the American Federation for Clinical Research in Portland, Ore.

The study grew out of the clinical observation that patients with certain endocrine diseases are often emotionally disturbed, and that hormones often bring their behavior back to normal. This raised the question as to possible differences in brain metabolism between the normal and emotionally abnormal.

The doctors analyzed samples of blood drawn from an artery before the blood enters the brain and from the jugular vein as it comes out of the brain. They found that the blood, sugar and oxygen requirements are the same for normal and schizophrenic persons. They also found no differences in the metabolism of old people and people who have had strokes.

In multiple sclerosis victims, the oxygen and sugar metabolism were normal, but there was a defect in the metabolism of glutamic acid, an amino acid. This defect was remedied in half the cases by the administration of succinate, a chemical that the brain can burn just as it normally burns glucose.

The results indicate that, with the exception of the single defect in multiple sclerosis, the abnormal conditions studied cannot be attributed to abnormalities in the rate of burning sugar or oxygen, or the rate of flow of blood to the entire brain.

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