

Books of the Week

TO SERVE YOU: To get books, send us a check or money order to cover retail price. Address Book Dept., SCIENCE NEWS LETTER, 1719 N St., N. W., Washington 6, D. C. Ask for free publication direct from issuing organizations.

AN ADULT EDUCATION PROGRAM FOR ORISSA, INDIA—William Cyrol Osgood—*Oregon State College*, 118 p., paper, \$1.00. What is needed to instruct the people of this part of India in reading and writing and the means for living and fighting off starvation and preventable disease.

BACTERIOLOGY—Robert E. Buchanan and Estelle D. Buchanan—*Macmillan*, 5th ed., 678 p., illus., \$6.00. In this edition particular emphasis is given to modern developments in cellular morphology and physiology and to the many technologies in which microorganisms are significant.

BETTER NURSING: A Study of Nursing Care and Education in Washington—Jean A. Curran and Helen L. Bunge—*University of Washington Press*, 174 p., paper, \$3.00. Report of a study by an Advisory Committee of the University of Washington.

THE CAROTID ARTERIES IN THE PROCYONIDAE—H. Elizabeth Story—*Chicago Natural History Museum*, 78 p., illus., paper, \$1.00. One of a series of studies being made in conjunction with work on the giant panda.

EDWARD KREMERS MEMORIAL LECTURE—George D. Beal—*Mellon Institute*, 13 p., paper, free upon request to the publisher, 4400 Fifth Avenue, Pittsburgh 13, Pa. Sponsored by Rho Chi Society and reprinted from the American Jr. of Pharmaceutical Education, this lecture honors a pharmaceutical scientist, Edward Kremers.

GEOLOGY OF THE SAN JOSE-MOUNT HAMILTON AREA, CALIFORNIA—Max D. Crittenden, Jr.—*California Division of Mines*, 74 p., illus., \$2.00. The sedimentary rocks of the area range in age from Upper Jurassic to Recent; all of them strongly folded and faulted.

INTRODUCTORY CHEMISTRY: For Students of Home Economics and Applied Biological Sciences—Lillian Hoagland Meyer—*Macmillan*, 532 p., illus., \$5.00. Intended to remove the fear of chemistry on the part of students who intend to take one year and very little more.

INTRODUCTORY COLLEGE CHEMISTRY—Harry N. Holmes—*Macmillan*, 5th ed., 594 p., illus., \$4.75. Atomic energy and fission are given

much more extended treatment in this edition and even the possible hydrogen bomb is briefly discussed.

THE MEASUREMENT OF LINKAGE IN HEREDITY—K. Mather—*Wiley*, 2nd ed., 149 p., \$1.75. A revised edition of this book by a British author on statistical and mathematical methods for the geneticist.

THE MEDORA SITE, WEST BATON ROUGE PARISH, LOUISIANA—George I. Quimby—*Field Museum of Natural History*, 50 p., illus., paper, \$1.25. This site consists of two Plaquemine Period mounds.

MINERALS USEFUL TO CALIFORNIA AGRICULTURE—Olaf P. Jenkins, Ed.—*California Division of Mines*, 148 p., illus., \$1.00. Showing how mining and agriculture help one another.

ON THE CLAUSILIIDAE OF PALESTINE—George Haas—*Chicago Natural History Museum*, 23 p., illus., paper, 40 cents. These sparsely distributed snails are considered remains of a more moist and possibly cooler era.

PHILIPPINE ZOOLOGICAL EXPEDITION, 1946-1947, NARRATIVE AND ITINERARY—Harry Hoogstraal—*Chicago Natural History Museum*, 84 p., illus., paper, \$1.50. This expedition took

advantage of U. S. Army surplus material and of soldier-scientists who were willing to take their discharges overseas to join the party. For months they collected birds and mammals with only rat traps and two old shotguns.

THE PLANT WORLD: A Text in College Botany—Harry J. Fuller—*Holt*, Rev. ed., 769 p., illus., \$4.75. This edition restores some of the technical material eliminated from the first edition.

REVIEW OF CURRENT RESEARCH AND DIRECTORY OF MEMBER INSTITUTIONS—Engineering College Research Council, 244 p., paper, \$2.25. More than 5,200 research projects are now active in 91 institutions.

SCIENCE FRENCH COURSE—C. W. Paget Moffatt, revised by Noel Corcoran—*Chemical Pub. Co.* 4th, ed., 332 p., \$4.75. For students who must read scientific books in French. The necessary minimum of grammar is provided together with a selection of extracts for practice and a vocabulary.

THE SIGNIFICANCE OF HONOR SOCIETIES—George D. Beal—*Mellon Institute*, 4 p., paper, free upon request to publisher, 4400 Fifth Ave., Pittsburgh 13, Pa.

THE TABLE ROCK BASIN IN BARRY COUNTY, MISSOURI—Lee M. Adams—*Missouri Archaeological Society*, 63 p., illus., paper, \$1.00. This first memoir of the Society describes the prehistory of an area that will probably be flooded in the construction of Table Rock Dam.

Science News Letter, July 7, 1951

AERONAUTICS

Varying Sweepback Wings

➤ **WINGS WHOSE** degree of sweepback can be altered in flight at the will of the pilot feature the new "flying laboratory," the Bell X-5. It is the first aircraft in which this is possible.

This new airplane is to be used by the National Advisory Committee for Aeronautics to investigate aerodynamic effects of changing the degree of sweepback in flight. It utilizes principles explored by the NACA and the finished product is the result of three years of research by the NACA, the U. S. Air Force and Bell engineers.

Built by the Bell Aircraft Corporation, it is regarded as a successor of the famous X-1. This was the first plane to break the sonic barrier and travel faster than sound. The new version is a speedy craft. More about its possible speed will be known after flight tests are completed. Taxi tests have already been made near Buffalo, N. Y. Flight tests will be made in the near future at Muroc, Calif.

Bell X-5, unlike the rocket-powered X-1, is equipped with a jet engine. It will be able to take off by itself and remain in the air for extended periods. The X-1 had to be carried aloft on the belly of a bomber and, after release, travelled by gravity and its own rocket power. But the rocket power lasted only a matter of a few minutes.

The engine used is the new Allison J-35-A-17 turbo-jet, said to be one of the most powerful jet engines in the world. Both length and wingspan of the X-5 are about 33 feet. Under its long pointed nose, which has a spear-like boom projecting forward, is an open "mouth" which is the intake for the air necessary to operate the engine.

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ASTRONOMY

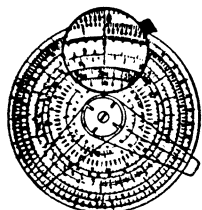
Less Stray Matter Around Jupiter than Near Mars

➤ **INTERPLANETARY TRAVELERS** of the future will find fewer stray asteroids, meteors and bits broken off from them around the planet Jupiter to obstruct their journey than in the vicinity of Mars, computations reported by Dr. Fred L. Whipple and Frank J. Kerr of Harvard Observatory to the American Astronomical Society meeting in Washington indicate.

There is not more than three grams of stray matter every ten billion cubic yards near the orbit of Mars, and not more than one-twentieth this much near Jupiter, they told members of the American Astronomical Society.

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THE BINARY SLIDE RULE



equals a 20 Inch Straight Slide Rule in precision. Has C, CI, A, K, Log, LL1, LL2, LL3, LL4. Binary. Add and Subtract Scales. Gives Trig. Functions from 0 to 90 degrees. The Engine-divided Scales are on white coated aluminum. Permanently accurate. Dia. 8 1/4". Large figures and graduations eliminate eyestrain. Approved at leading Universities. Price, with Case and Instructions, \$7.25. "Midget" rule, 4" dia., \$2.50. Circulars free. Money-back guarantee.

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