

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. books 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.

ASTM STANDARDS ON PAINT, VARNISH, LACQUER, AND RELATED PRODUCTS (WITH RELATED INFORMATION)—Committee D-1—*American Society for Testing Materials*, 8th ed., 781 p., illus., paper, \$5.75. Includes 23 new standards prepared since the previous edition.

THE AMERICAN MUSEUM OF NATURAL HISTORY EIGHTY-THIRD ANNUAL REPORT, JULY, 1951, THROUGH JUNE, 1952—Alexander M. White, president—*American Museum of Natural History*, 64 p., illus., paper, free upon request direct to publisher, Central Park West at 79th St., New York 24, N. Y.

THE AMES DEMONSTRATIONS IN PERCEPTION: A Guide to Their Construction and Use—William H. Ittelson—*Princeton University Press*, 88 p., illus., paper, \$4.00. These demonstrations developed at the Dartmouth Eye Institute and the Institute for Associated Research at Hanover, N. H., have taught scientists much regarding perception and its relation to previous experience and learning.

BETTER HEALTH FOR SCHOOL-AGE CHILDREN—Committee on the School-Age Child—*Federal Security Agency*, 12 p., paper, free upon request direct to publisher, Washington 25, D. C. School years are strategic years in correcting handicaps and building sound health.

BIOLOGY OF THE TESTES—John MacLeod, Ed.—*New York Academy of Sciences*, 198 p., illus., paper, \$3.75. Delineating some of the principal areas of investigation upon male reproduction.

THE BIRDS OF CRATER LAKE NATIONAL PARK—Donald S. Farmer—*University of Kansas Press*, 187 p., illus., paper, \$1.25. One of the objectives of this book inventorying information on the birds of the park is to tell the visitor about what he may expect to see.

CALIFORNIA COOPERATIVE SARDINE RESEARCH PROGRAM PROGRESS REPORT I JANUARY, 1951, TO 30 JUNE, 1952—J. G. Burnette, Chairman—*California Department of Fish and Game*, 51 p., illus., paper, free upon request to publisher, P. O. Box 807, Los Altos, Calif. The outlook for the next two seasons is pictured as very bleak; the catches will be the smallest in a generation.

CHEMIVISION: From Farm to Factory to Fortune—William J. Hale—*Destiny*, 207 p., \$3.00. The author visions a golden age to come when waste of non-replaceable resources will be abolished and man's needs will be provided for fully by science and chemurgy.

THE COMMONWEALTH FUND THIRTY-FOURTH ANNUAL REPORT 1952—Malcolm P. Aldrich, President—*The Commonwealth Fund*, 42 p., paper, free upon request direct to the publisher, 1 East 75th St., New York 21, N. Y.

COMPUTING METHODS AND THE PHASE PROBLEM IN X-RAY CRYSTAL ANALYSIS—Ray Pepinsky, Ed.—*X-Ray Crystal Analysis Laboratory, Pennsylvania State College*, 390 p., illus., paper, \$7.50. Most of the papers presented before a conference held at Pennsylvania State College in April, 1950.

CONTROLLED MATERIALS PLAN AND HEALTH FACILITIES July 1, 1951 - June 30, 1952—U. S. *Public Health Service*, 87 p., paper, free upon request to Wesley E. Gilbertson, Div. of Civilian Health Requirements, Public Health Service, Washington 25, D. C. A serious problem was the job of maintaining hospital and health facility construction in the face of shortages of steel, copper and aluminum.

DICTIONARY OF DISCARDS—Frank M. Rich—*Association Press*, 141 p., illus., paper, \$3.50. Uses you can make of a bewildering array of objects you might be thinking of throwing away. Your Christmas cards, for example, can be used to make handkerchief cases, puppet stage or toy village properties, or scrapbooks, as well as many other things.

FUNNY SQUIRREL—Elizabeth Laing Stewart—*Reilly & Lee*, 48 p., illus., \$2.00. The abundance of beautiful nature photographs and brief text introduce the young child to a number of animals and birds in addition to the "funny squirrel."

HIGH FIDELITY SIMPLIFIED—Harold D. Weiler—*Rider*, 208 p., illus., paper, \$2.50. How you can have good music reproduced without distortion in your own living room.

HOW TO HAVE A HAPPY CHILD—Beulah France—*Sterling*, 130 p., \$2.50. The author, a nurse, has answered some of the hundreds of questions she has received from the readers of her daily newspaper column. Hints on prenatal care and the first six years in the child's life.

INDUSTRIAL HEAT EXPOSURES—EVALUATION AND CONTROL—George F. Haines, Jr. and Theodore Hatch—*Mellon Institute*, 12 p., illus., paper, free upon request direct to publisher, 4400 Fifth Ave., Pittsburgh 13, Pa. Offering a practical means of determining the nature and extent of heat stress imposed on workers in industry. In the glass industry, radiation shields made of aluminum foil were effective.

THE LOWER EOCENE KNIGHT FORMATION OF WESTERN WYOMING AND ITS MAMMALIAN FAUNAS—C. Lewis Gazin—*Smithsonian, Miscellaneous Collections Volume 117, Number 18*, 82 p., illus., paper, \$1.00.

MICROWAVE SPECTROSCOPY—B. P. Dailey, Ed.—*New York Academy of Sciences*, 222 p., illus., paper, \$3.00. Presenting the capabilities and limitations of the microwave spectrograph, and discussing possible future development in this field.

THE NATURAL HISTORY OF THE PIG: Its Evolutionary Status, Antiquity, Body, Brain, and Behavior, and Its Effect on People—Ida M. Mellen—*Exposition Press*, 157 p., illus., \$3.75. The long history of this barnyard animal is traced back to the Tertiary Epoch, and the modern animal is credited with much intelligence and a noble character.

NUCLEAR STABILITY RULES—N. Feather—*Cambridge University Press*, 162 p., \$4.00. The aim is to so marshal the experimental facts of nuclear physics that the theorist is most likely to be inspired by valid ideas.

ORAL FAT EMULSIONS—Fredrick J. Stare, Ed.—*New York Academy of Sciences*, 139 p., illus., paper, \$3.00. Emulsions of very fine particle size, to improve the taste, have been used with success to put weight on patients suffering from emaciating diseases.

POLLEN MORPHOLOGY AND PLANT TAXONOMY: Angiosperms (An Introduction to Palynology. I)—G. Erdtman—*The Chronica Botanica*, 539 p., illus., \$14.00. The study of pollen has applications in many diverse fields from geology, archaeology and ecology to apiculture and medicine. This text will aid the student embarking on this study.

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NATURE PHOTOGRAPHY WITH MINIATURE CAMERAS by Alfred M. Bailey (Denver Museum of Natural History). This eminent explorer and scientist displays his finest Exakta photographs and others along with explanatory material. 35 full page photographs. 64 pages. . . . \$0.60

Exakta Camera Co., 46 W. 29th St., N. Y. C. 1

THE ROCKEFELLER FOUNDATION ANNUAL REPORT 1951—Chester I. Barnard—*Rockefeller Foundation*, 557 p., illus., paper, free upon request direct to publisher, 49 West 49th St., New York 20, N. Y. Describing the scientific work aided by the foundation.

A SHORT TABLE FOR THE BESSEL FUNCTIONS—C. W. Jones—*Cambridge University Press*, 20 p., paper, \$1.25. A short table published to meet the demands of workers in theoretical physics and quantum chemistry. Suitably modified forms of the Bessel Functions I and K of the accepted standard form.

THE SOIL THAT WENT TO TOWN—C. W. Gee—*Govt. Printing Office*, Soil Conservation Service AIB 95, 21 p., illus., paper, 10 cents. Showing graphically through a profusion of excellent photographs how soil erosion injures not only the farmer but the city dweller.

TEACHING AGRICULTURE: A Selected Bibliography—UNESCO and FAO—*Education Clearing House*, 52 p., paper, free upon request to publisher, UNESCO, 19, Avenue Kleber, Paris XVI. Designed as a guide to field workers.

Science News Letter, December 27, 1952

Do You Know?

Spinsters is at an all-time low in the United States.

Electrical *energy* is created when water moves through the earth's magnetic field.

Fish *proteins* are rich in the amino acids needed in chicken feed for normal poultry growth.

A cubic mile of *sea water* contains 166,000,000 tons of dissolved salts of the elements.

A new electronic temperature-taking instrument measures body *temperature* in less than 4½ seconds.

Fog makes driving difficult at night because each fog droplet acts as a many-sided mirror, reflecting light in all directions.

About 90,000 Americans are partly or completely *blind* because of scarred corneas—the normally transparent covering of the iris and pupil of the eye.

NATURAL RESOURCES

Williston Basin Promising

➤ THE WILLISTON Basin of the Dakotas and Montana gives promise of being one of the major oil fields of America, the American Petroleum Institute meeting in Chicago was told by S. F. Bowlby, Shell Oil Company, Los Angeles. The prediction is made on a basis of its geological structure and the success of wells already drilled.

The Williston Basin is a large area in the western part of the Dakotas and eastern Montana in the United States, and southern Manitoba and Saskatchewan in Canada. Drilling is now largely in North Dakota.

The first major oil discovery in the basin was made early in 1951. Since then some

75 new field wildcat wells have been drilled in the American area and have resulted in 13 discoveries of one sort or another. This is pronounced by Mr. Bowlby as a high success ratio, considerably higher than that for the entire United States during the past ten years.

At present, in the American area of the basin, there are 80 drilling rigs. About 120 seismic crews are studying geological structures with the underground sound wave method long used. Some 80% of the potential oil area is now under lease to oil companies. According to Mr. Bowlby, the activities show that, in the judgment of the oil industry as a whole, the Williston Basin constitutes a major oil province.

The Williston Basin, he said, is the largest basin of sedimentary deposition favorable to the accumulation of oil on the North American continent. Its sedimentary section reaches a thickness of 12,000 feet in its deepest part. This centers along the Montana-North Dakota border.

The total basin is not yet clearly defined because there is no real geological barrier between it and the great Alberta Basin, which includes the prolific fields of Alberta and extends northward into the Fort Norman area where oil has already been found.

Science News Letter, December 27, 1952

Because of bad weather, enough *protein* is lost each year during the field curing of hay to provide protein requirements of 7,500,000 cows for six months.

Questions

ASTRONOMY—How many eclipses are scheduled for 1953? p. 407.

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ENTOMOLOGY—How do potassium fertilizers affect the red mite population? p. 405.
How many deaths have been prevented by use of DDT? p. 409.

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GENETICS—Why are P.T.C. sweet-tasters being sought? p. 404.

• • •

METEOROLOGY—What has been the weather on the last four Inauguration Days? p. 402.

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NUTRITION—What is now the No. 1 nutritional problem in the U. S.? p. 408.

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RADIO—How was the formation and lowering of the radio roof finally detected? p. 402.

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Photographs: Cover and p. 403, Mount Wilson and Palomar Observatories; p. 405, Boeing Airplane Co.; p. 406, U. S. Air Force; p. 412, Eastman Kodak Co.

BIOLOGY TEACHERS

You can get better microscopic slides for less! Since comparative histology tells so much about the nature of man, this study should begin early and be enlarged on in the liberal arts and teachers colleges, and in the university. Like English, it should be a required study for all students in every school of intermediate and higher education. The result would be a better citizenry: better parents, better teachers, better preachers, better physicians, a better man, and a better society, which is the purpose of education. Premedical students should make comparative histology their biggest course, because the medical schools devote very little time to the study of this most important discipline. The medical students should realize that knowledge of cellular biology gives meaning to pathology, anatomy and physiology and is the natural and least costly approach to all medical problems. *Begin study histology in high school.*
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