

give distances shorter than the length of the radio wavelength used, but it is now possible to use wavelengths as short as 10 meters (10.9 yards) for this purpose. These are very good; it is not necessary to wait until one centimeter or ten centimeter wavelengths are made available.

Another aid which further research may adapt for the use of the flyer is the device used by vessels to determine the depth of the water beneath the hull by measuring the time required for a sound to return as an echo. A similar device has already been tried on airplanes but at present it is necessary for the flyer to judge from the loudness of the sound how far he is above the earth. It would be quite possible to have an instrument pick up the echo and show on a dial the height of the plane in feet above the landing field.

Science News Letter, March 3, 1934

ARCHAEOLOGY

One Child in Three Died In Ancient Indian Village

ONE BABY out of every three—this high proportion claimed by death is revealed by excavations at one prehistoric Indian village.

Excavation of the cemetery of this village, Un Shagi, is reported by Dr. George Woodbury to the American Association for the Advancement of Science. The village, which was apparently inhabited only about a hundred years in prehistoric times, lies in the Jemez Canyon, in New Mexico.

The ruins have been the scene of excavations since 1926, under direction of the School of American Research and the University of New Mexico. One-third of the cemetery has been unearthed, most of the burials being found in the refuse heap. A few infants were buried in the floors of still inhabited rooms, Dr. Woodbury said.

From his study of the 85 burials that have been found, Dr. Woodbury concluded that 36 per cent. of the village inhabitants died in infancy. He also found evidence that not more than four generations were buried in the cemetery, which means that Un Shagi had a brief career as a settlement.

Finding about twice as many female as male burials at the ruin is explained by Dr. Woodbury on the grounds that a good many of the men doubtless died while off hunting or at war and were buried elsewhere.

Science News Letter, March 3, 1934

• First Glances at New Books

Chemistry

OUT OF THE TEST TUBE—Harry N. Holmes—*Long and Smith*, 373 p., \$3. The author, who is professor of chemistry at Oberlin College, has command of a literary style marked by much of Van Loon's breezy rush and impatience of detail; yet he is a real chemist after all, so that he gets his main facts on straight and even manages to present structural formulae of organic compounds in palatable form. The book is baited with many chemical wonder-facts of the "oh, my!" variety, yet each such bait pulls the reader straight into a "here's why" of fundamental scientific explanation.

Science News Letter, March 3, 1934

Physics—Industry

INDUSTRIAL RADIOGRAPHY — Ansel St. John and Herbert R. Isenburger—*Wiley*, 232 p., \$3.50. X-rays have rendered such important service in medicine and to experimental physics that we are likely to forget they can be useful to industry. With much practical detail and scientific background, this treatise should prove valuable to those who wish to apply radiography by X-rays or gamma rays to industrial problems. An excellent 20-page bibliography completes the volume.

Science News Letter, March 3, 1934

Physics

COLLISION PROCESSES IN GASES—F. L. Arnot—*E. P. Dutton*, 104 p., \$1.20. Written to assist those who are about to begin experimental research on problems involving the collision of electrons, photons and positive ions with atoms and molecules of a gas at low pressures, this latest addition to a useful series of monographs is divided into two parts. The first part is devoted to collisions between electrons and atoms and the other to other types of collisions.

Science News Letter, March 3, 1934

Education

A STUDY OF LIBRARY READING IN THE PRIMARY GRADES—C. DeWitt Boney—*Teachers College, Columbia Univ.*, 70 p., \$1.50. One of the "Contributions to Education, No. 578."

Science News Letter, March 3, 1934

Horticulture

MODERN GUIDE TO SUCCESSFUL GARDENING—M. G. Kains—*Greenberg*, xiv+370 p., \$2.50. The world is full of books about gardening, but most of them are not intended to be read, only to be "consulted," like a cyclopedia or a collection of formulas or recipes, when you want some specific bit of information or direct instruction how to accomplish a given job. Mr. Kains' book is different. It does give plenty of information, and tells how to do things, but it goes about its business in such an engagingly chatty, breezy fashion that it tempts you to sit and read it "just for fun." Which undoubtedly make its contents "slip down" easier, and sit better on the mental digestion.

Science News Letter, March 3, 1934

Botany

CACTUS — Laura Adams Armer—*Stokes*, 101 p., \$1.50. The present vogue for rock gardens and desert gardens has caused a great upswing in popular interest in cacti, most characteristic of American dry-land plants, yet among the strangest of all vegetables. The present book is one of the most attractive of all recent cactus literature, presenting in chatty yet accurate form the principal facts about the most outstanding species, and illustrating each with an excellent full-page pen drawing by Sidney Armer.

Science News Letter, March 3, 1934

Nature Study

STORIES OF OUTDOOR SCIENCE—Lewis M. Dougan—*Lyons and Carnahan*, xi+357 p., 80c. A well planned, well written, well illustrated textbook of general outdoor science, particularly as seen and experienced in the Mississippi valley.

Science News Letter, March 3, 1934

Psychology

EDUCATIONAL PSYCHOLOGY — William A. Kelly—*Bruce*, 501 p., \$2.40. A text intended for use in Catholic schools and colleges. Chapters on the "Soul," the "Will," and "Character Formation" emphasize the spiritual and moral training of the child.

Science News Letter, March 3, 1934

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