

## • First Glances at New Books •

➤ A "MUST" BOOK for all biologists is Franz Schrader's *MITOSIS*. All known facts about this basic life phenomenon, together with all present-day efforts at interpretation, are summarized in only 86 pages of text—a masterly job of condensing and packing, with all statements tightly documented. For those who want to go into some phase more extensively, the additional 18 pages of literature citations furnish an adequate bibliography. (*Columbia Univ. Press*, \$2.)

*Science News Letter, July 29, 1944*

➤ *CHEMICAL MACHINERY*, by Emil Raymond Riegel, is an interesting elementary treatise of machinery, apparatus and devices used in the chemical industries. It is non-technical. (*Reinhold*, \$5).

*Science News Letter, July 29, 1944*

➤ *STUDENTS* of both chemistry and scientific agriculture have reason to welcome *A SOURCE BOOK OF AGRICULTURAL CHEMISTRY*, by Charles A. Browne (*Chronica Botanica Co.*, \$5). Dr. Browne has done a most scholarly piece of work, in selecting excerpts from the really significant writings about the chemistry of the soil and the plants that grow therein, all the way from the Greeks to Liebig. His penetrating comments carry this work beyond the ordinary scope of a source book: they show how the science grew and evolved, each master preparing the soil in which his successors might find root for their newer knowledge.

*Science News Letter, July 29, 1944*

➤ *VICTORY Gardeners* will find Louis Pynson's *PEST CONTROL IN THE HOME GARDEN* a field manual well adapted for the kind of defensive warfare they have to wage. It tells, in compact text and clear illustrations, the pertinent facts about the principal garden pests, describes weapons and munitions, and gives directions for using them. (*Macmillan*, \$2.)

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➤ *PLANT PHYSIOLOGISTS*, whether their outlook be strictly of the laboratory or of application in agronomy, will find much good meat in *LECTURES ON THE INORGANIC NUTRITION OF PLANTS*, by D. R. Hoagland, first of a new series of plant science books edited by Frans Verdoorn (*Chronica Botanica Co.*, \$4). Not professing to be completely exhaustive, this group of essays nevertheless gives the main outlines of modern knowledge in its field in most satisfying fashion, and includes a great deal that has not yet found its way into even the later editions of standard texts.

*Science News Letter, July 29, 1944*

### • Just Off the Press •

*THE FIGHT AT PEARL HARBOR*—Blake Clark—*Infantry Journal*, 104 p., paper, 25 cents. Fighting Forces Series, June 1944.

*GAS WARFARE: Smoke, Flame and Gas in Modern War*—Alden H. Waitt—*Infantry Journal*, 228 p., papers, 25 cents. Fighting Forces Series, June 1944.

*GERMAN DICTIONARY FOR THE SOLDIER*—Henius—*Infantry Journal*, 239 p., paper,

50 cents. Fighting Forces Series, June 1944. *THE MYCETOZOA OF NORTH AMERICA*: Based upon the Specimens in the Herbarium of the New York Botanical Garden—Robert Hagelstein—*Hagelstein*, 326 p., illus.

*THE NAZI STATE*—William Ebenstein—*Infantry Journal*, 335 p., paper, 25 cents. Fighting Forces Series.

*NOR DEATH DISMAY: A Record of Merchant Ships and Merchant Mariners in Time of War*—Samuel Duff McCoy—*Macmillan*, 248 p., \$2.50.

*OUR ENEMY JAPAN*—Wilfrid Fleisher—*Infantry Journal*, 179 p., paper, 25 cents. Fighting Forces Series, June 1944.

*THE RUSSIAN ARMY: Its Men, Its Leaders and Its Battles*—Walter Kerr—*Infantry Journal*, 186 p., paper, 25 cents. Fighting Forces Series, June 1944.

*A SHORT HISTORY OF THE ARMY AND NAVY*—Fletcher Pratt—*Infantry Journal*, 262 p., paper, 25 cents. Fighting Forces-Penguin Special.

#### NUTRITION

## C. O. Guinea Pigs

➤ *CONSCIENTIOUS* objectors recruited from camps all over the country have volunteered their services as human guinea pigs for experiments to test the energy value of food rations issued to soldiers at the fighting fronts, it was disclosed by Dr. Ancel B. Keys, professor of physiology at the University of Minnesota, at a dinner given by the Sugar Research Foundation.

Dr. Keys was one of six recipients of grants totaling \$104,000, announced tonight by the Foundation for further studies on sugar.

By using 24 conscientious objectors, as well as students, hospital patients, and soldiers for his experiments, Dr. Keys expects to find the answers to such problems as how much thiamin and other vitamins we need, and how sugar influences our requirements for them.

The volunteers live in laboratory dormitories where the temperature can be adjusted to tropic heat or arctic cold, from 30 degrees below to 130 degrees above zero Fahrenheit. The air is sometimes so humid that it practically rains, and clothes and bedding are damp. The humidities range from 10% to 95%.

"The subject," reported Dr. Keys, "takes all his meals in the laboratory dining-room where the food is all prepared in an adjoining kitchen. Every portion is weighed and an exactly similar one is quick-frozen and preserved for

*SO YOU'RE GOING OVERSEAS!*—S. T. Barker—*Infantry Journal*, 118 p., paper, 25 cents. Fighting Forces Series, June 1944.

*TECHNIC OF ELECTROTHERAPY* and its Physical and Physiological Basis—Stafford L. Osborne and Harold J. Holmquest—*Thomas, C. C.*, 780 p., illus., \$7.50.

*TRAINS, TRACKS AND TRAVEL*—T. W. Van Metre—*Simmons-Boardman*, 417 p., illus., \$3.50. Sixth ed.

*THE TRUTH ABOUT DE GAULLE*—Andre Riveloup—*Arco*, 80 p., paper, \$1.

*WAR BACKGROUND STUDIES*—*Smithsonian Institution*—Nos. 2, 3, 5, 8, 12 and 17, 10 cents per copy, all others 25 cents. Price Change.

*THE WAR IN OUTLINE 1939-1944: Materials for the Use of Army Orientation Course*—War Dept.—*Infantry Journal*, 228 p., paper, 25c. Fighting Forces Series, June 1944.

*THE WOODS HOLE MARINE BIOLOGICAL LABORATORY*—Frank R. Lillie—*Univ. of Chicago Press*, 284 p., illus., \$4.

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exact analysis in the chemical laboratory. . . . In this way the staff scientists know exactly what goes into each subject.

To determine the energy value of the food they eat, the subjects spend a certain number of hours each day on motor-driven treadmills, and a record is kept of the amount of work done and the calories expended.

Other tests include an analysis of the air breathed out by the subject, analysis of blood samples taken from his arm, and a record of his pulse rate. These tests give the scientists a picture of each man's ability to do work and susceptibility to fatigue.

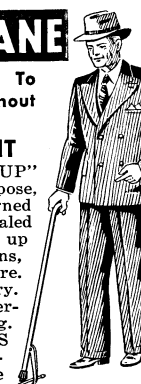
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