

Vol. 105
No. 2729

Pages 399-416

April 18, 1947

Science

THE SCIENTISTS NEWSWEEKLY



Chairmen of local committees conferring on plans for the 114th annual meeting of the AAAS, to be held in Chicago. *Standing:* W. L. Cortelyou, Roosevelt College, Finance Committee, and Jeannette Lowrey, University of Chicago, Publicity Committee. *Seated:* R. T. Van Niman, Chicago Technical Societies Council, Equipment Committee; Margaret Scriven, Chicago Historical Society, Reception and Entertainment Committee; and Hans O. Hoepfner, University of Chicago, Registration Committee (see *News and Notes*).

Published by the
AMERICAN
ASSOCIATION
FOR THE
ADVANCEMENT
OF SCIENCE

A Chemist's View of Nutrition
Leonard A. Maynard

New!

PHYSIOLOGY CHARTS

In Diagrammatic Colors

By
DR. A. J. CARLSON - PROFESSOR EMERITUS
DEPARTMENT OF PHYSIOLOGY, UNIVERSITY OF CHICAGO



21 CARLSON Physiology CHARTS—

9 HEALTH, HYGIENE, SAFETY and FIRST-AID CHARTS by EMINENT SPECIALISTS IN EACH PARTICULAR FIELD—

30 CHARTS IN THE SET

EACH CHART 29 x 42 INCHES

UP-TO-DATE

NON-TECHNICAL

SELF-TEACHING

COLOR DIFFERENTIATION MAKES CLEAR BODY PROCESSES, EMPHASIZES IMPORTANT FACTS.

ECONOMICAL

No. 17 Vision of Set No. 7050

- No. 7050. PHYSIOLOGY CHARTS Set of 30 in Charthead with tripod. Per Set... \$37.50**
No. 7050A. PHYSIOLOGY CHARTS Set of 30 in Charthead but provided with wall bracket mounting. Per Set... \$37.50
No. 7050B. PHYSIOLOGY CHARTS Set of 30 in Charthead with a heavy, circular, metal base support. Per Set... \$42.50

Write for Circular.

Another outstanding example of quality teaching materials at a low price.

W. M. WELCH SCIENTIFIC COMPANY

Established 1880

1515 Sedgwick St., Dept. E Chicago 10, Ill., U. S. A.

Manufacturers of Scientific Instruments and Laboratory Apparatus

297
Illustrations
43 in color

*GIVES
CONTACT
WITH REAL
OBJECTS OF
NATURE*

MILLARD & KING'S

Human Anatomy & Physiology

Second Edition. This textbook represents one of the most significant contributions to the teaching of elementary anatomy and physiology in print today. Outstanding for its superb balance and refreshing style, it covers the basic facts essential in the study of human anatomy and physiology. Anatomical systems serve as a basis for the understanding of physiological principles.

Such subjects as Pseudostratified Epithelium, Chemical Changes during Muscle Contraction, and Sensory Mechanisms are fully discussed. The Physiology of the Muscle, the Arterial Pulse, the Nerve Impulse, Cerebrospinal Fluid, etc., are presented with special attention to recent advances in knowledge. There are 44 new illustrations, bringing the total to 297.

By NELLIE D. MILLARD, R.N., M.A., Instructor in Anatomy and Physiology, School of Nursing, Michael Reese Hospital, Chicago; and BARRY G. KING, Ph.D., Lt. Cmdr. U.S.N.R., Naval Medical Research Institute, National Naval Medical Center, Bethesda, Md. 514 pages, 297 illustrations, 43 in color. \$3.00.

MILLARD & SHOWERS'

Laboratory Manual of Anatomy and Physiology

A *laboratory manual* designed to give the student actual contact with real objects of nature. As he follows the clearcut directions for each experiment, he will find anatomy and physiology becoming much more than a mere theoretical discussion of structure and function. He will see actual tissues, nerves and arteries, will learn the interrelation of every function of the body, and be able to watch, with understanding, muscle action, respiration and circulation taking place in human specimens.

The exercises of this manual include the study of living animals, dissection of the rabbit, frog, the embalmed cat, guinea pig and butcher shop specimen; microscopic examination of living and prepared tissues and investigation of physiological phenomena.

By NELLIE D. MILLARD, R.N., B.S., M.A., Instructor in Anatomy and Physiology, Michael Reese Hospital School of Nursing, Chicago; and MARY JANE C. SHOWERS, R.N., B.S., Instructor in Anatomy and Physiology, the Christ Hospital School of Nursing, Cincinnati, Ohio. 119 pages, illustrated. \$1.00.

W. B. SAUNDERS COMPANY, Publishers

West Washington Square

Philadelphia 5

Editor: Willard L. Valentine (*deceased*)

Assistant Editor **Business Manager**

Mildred Atwood Theo. J. Christensen

Publications Committee

Roger Adams, John E. Flynn, Kirtley F. Mather,

Walter R. Miles, W. J. Robbins, Malcolm H. Soule

Science

Vol. 105

No. 2729

Friday, April 18, 1947

CONTENTS

A Chemist's View of Nutrition: *Leonard A. Maynard* 399

Legislation Affecting Scientists in the Armed Forces:
Herman S. Wigodsky 404

News and Notes 407

Technical Papers

Action of Substituted Salicylaldehydes on Bacteria and Fungi:
Lloyd C. Felton and John H. Brewer 409

Prediction of Speed of Performance by Muscle Action Potentials:
John L. Kennedy and Roland C. Travis 410

Recovery of Western Equine Encephalomyelitis Virus From Wild Bird Mites (*Liponyssus sylvarum*) in Kern County, California: *W. C. Reeves, et al.* 411

Effect of 2,4-D on Bean Progeny Seedlings: *A. M. S. Pridham* 412

In the Laboratory

Multiple Thermal Analyses: *J. L. Kulp and Paul F. Kerr* 413

Discrepancy in Analysis of Penicillin in Blood by the Oxford Cup Method as Revealed by the
Paper Disc Technique: *Marion B. Sherwood and Edwin J. de Beer* 414

A Simple Method for Studying Friction: *Alva Turner* 414

Thermostated Cell Compartment for the Beckman Spectrophotometer:
Paul H. Bell and C. R. Stryker 415

Science, a weekly journal, is published each Friday by the American Association for the Advancement of Science at Mt. Royal & Guilford Avenues, Baltimore 2, Maryland. Founded in 1880, it has been since 1900 the official publication of the AAAS. Editorial, Advertising, and Circulation Offices, 1515 Massachusetts Avenue, N.W., Washington 5, D. C. Telephone, EXecutive 6060 or 6061. Cable address, SCIMAG, Washington, D. C.

Articles offered for publication should be sent to the Editor, 1515 Massachusetts Avenue, N.W., Washington, 5 D. C.

Membership correspondence for the AAAS should be sent to the Administrative Secretary, 1515 Massachusetts Avenue, N.W., Washington 5, D. C.

Change of address. Four weeks notice required for change of address. When ordering a change, please furnish an address stencil label from a recent issue. Address changes can be made only if the old as well as the new address is supplied.

Annual subscription, \$7.50; single copies, \$.25; foreign postage (outside the Pan-American Union), \$1.00 extra, Canadian postage, \$.50 extra. Remittances and orders for subscriptions and for single copies, notices of changes of address, and claims for missing numbers should be sent to the Circulation Department.

Entered as second-class matter January 17, 1947, at the postoffice at Baltimore, Maryland, under the act of March 3, 1879.