Vol. 105 No. 2733 Pages 507-532

May 16, 1947

cience

THE SCIENTISTS NEWSWEEKLY

News and Notes

Technical Papers

In the Laboratory



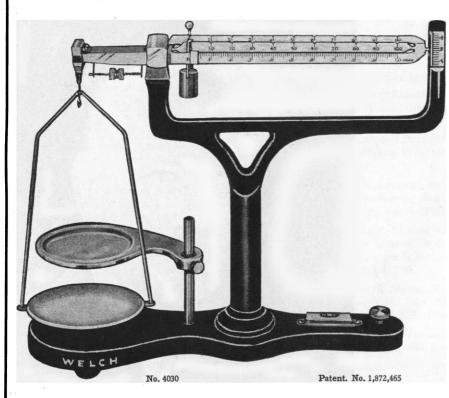
Stephen P. Timoshenko, professor emeritus of theoretical and applied mechanics at Stanford University, who was awarded the James Watt International Medal by the Council of the Institution of Mechanical Engineers of Great Britain on April 26. As a feature of the award ceremonies, Dr. Timoshenko delivered a series of lectures to the Institution on "Stress Concentration and Fatigue Failures." Dr. Timoshenko and the late Henry Ford are the only American recipients of the medal.

Published by the AMERICAN = ASSOCIATION =

ADVANCEMENT OF SCIENCE Science and Statecraft
Marshall H. Stone

SIX REASONS for selecting.

WELCH STAINLESS STEEL TRIPLE-BEAM BALANCES



SENSITIVITY: 0.01 g. or less at total capacity CAPACITY: 111 g. (with extra weight 201 g.)

1 - Fast and Accurate Weighings



2 - High Sensitivity



3 - Cobalite Knife Edges



4 - Covered Agate Bearings



5 - Three Etched Scales (visible at eye level)



6 - Stable and Well Damped

Each \$21⁵⁰—Lots 3, Each \$19⁵⁰

(Extra weight \$1.25 additional)

W. M. WELCH SCIENTIFIC COMPANY

–Established 1880-

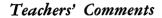
1515 Sedgwick St., Dept. E.

Chicago 10, Ill., U.S.A.

Stimulate Student Incentive With . . .

WILLIAMS'

ANATOMY & PHYSIOLOGY



"Of greater value than ever to teacher and student."

"A distinct improvement over previous editions."

"Particularly well adapted for arrangement in lecture and note outline."

"High standard of previous editions maintained."

"The colored illustrations are both instructive and decorative."

"An already valuable and highly satisfactory text improved."

"The new illustrations on the muscle groups add to value of the text."

"Best book of its type."

"Concise and logical."

In the Seventh Edition Dr. Williams stimulates the natural curiosity of the student and provides incentive to get the most out of the subject. He does this by concluding each chapter with a plan of study, practical exercises and questions for review. These study aids have proved to be a tremendous help to teachers as well as to students.

In the text itself, the discussions of anatomy and physiology have been masterfully interwoven to present a unified picture of the structure and function of the organs and systems of the body.

The biologic approach is maintained throughout. This is evident in the first chapter which traces the development of the single cell through its stages of development into the complete organism. The second chapter introduces the concept of the new and whole organism and proceeds with human anatomy, beginning with surface or external anatomy.

Then follow chapters on the Skeleton (including the spine, skull, thorax, pelvis and extremities); on Muscles and Their Action, the Nervous System, and on Organs of General and Special Sense. The sections on the Circulatory System discuss fully the blood and heart; succeeding chapters detail the Vessels and Their Functions, and Respiratory System.

Dr. Williams seeks to instil an intelligent appreciation of just how the knowledge gained will benefit the student. The clear, concise and highly interesting treatment that each step of the subject receives lifts this time-tested textbook out of the ordinary.

By Jesse Feiring Williams, M.D., Sc.D., Emeritus Professor of Physical Education, Teachers College, Columbia University. 573 pages, 5½" x 7¾", with 344 illustrations, 31 in colors. \$2.75

W.B. Saunders company

. 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

Vol. 105

No. 2733

Friday, May 16, 1947



CONTENTS

Science and Statecraft:	Machteld E. Sano	52
Marshall H. Stone 507	Inhibition of Heating and Lipolysis in Seeds: Marjorie Z. Condon, et al	
Effects of an Antibiotic From Asper-	Hydrolysis by Carbitolic Caustic: R. Macy	52
gillus fumigatus Fresenius on Tumor	Changes in Urinary Steroid Excretion and Correlated Metabolic Effects During Prolonged Administra-	
Cells in Vitro and Its Possible Iden-	tion of Adrenocorticotropic Hormone in Man: George W. Thorn, F. T. Garnet Prunty, and Peter H. Forsham	
tity With Gliotoxin: John G. Kidd 511		52
Electron Configurations of "Rare-Earth"	In the Laboratory	
Elements: William F. Meggers 514	•	
	A Method for Measuring the Speed of Centrifuges: F. R. Hunter and J. F. Hoffman	529
News and Notes 517	A Biologically Absorbable Surgical Glove Powder: John T. Correll and E. C. Wise	529
Comments by Readers 522	A Method of Drying Partial Protein Hydrolysates and	
Technical Papers	Other Hygroscopic Materials for Nutritional Studies: R. J. Westfall, O. Miller, and I. S. Westfall	530
	Synergistic Insecticides: Herman Wachs	530
Properties of Adsorbed Chlorophyll: H. C. Eyster 523	Specific Surfaces of Bone, Apatite, Enamel, and Dentine: Noel V. Wood, Jr	53
Daily Nitrogen Urinary Excretion in People of the Working Class of Caracas: Francisco De Venanzi 524	Increasing the Spreading Coefficient of Mustard Gas: Walter H. C. Rueggeberg	532

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.