

SCIENCE

VOL. 85

FRIDAY, APRIL 16, 1937

No. 2207

<i>The American Association for the Advancement of Science:</i>	
<i>Embryology and Its Relations:</i> PROFESSOR ROSS G. HARRISON	369
<i>Obituary:</i>	
<i>Elihu Thomson:</i> PRESIDENT KARL T. COMPTON.	
<i>Recent Deaths</i>	374
<i>Scientific Events:</i>	
<i>Broadcasts of the 1937 Eclipse; Appointments and Promotions at the Massachusetts Institute of Technology; Grants Awarded by the American Philosophical Society; Dedication of the New Building of Mellon Institute</i>	377
<i>Scientific Notes and News</i>	380
<i>Discussion:</i>	
<i>Cobalt—an Essential Element:</i> PROFESSOR ROSS AIKEN GORTNER; H. G. DENHAM. <i>Thermodynamics and the Rates of Coupled or Reversed Reactions:</i> PROFESSOR PIERRE VAN RYSSELBERGHE. <i>Magnification of Time as a Research Technique in the Study of Behavior:</i> DR. CARNEY LANDIS and W. A. HUNT. <i>Cell Inclusions in Azotobacter chroococcum</i> Beij.: PROFESSOR AUGUSTO BONAZZI	382
<i>Scientific Books:</i>	
<i>Statistical Mechanics:</i> PROFESSOR J. H. VAN VLECK. <i>Meteorology:</i> DR. W. J. HUMPHREYS.	
<i>Culture Methods for Invertebrates:</i> PROFESSOR A. S. PEARSE	385
<i>Societies and Meetings:</i>	
<i>The Toronto Meeting of the American Association of Anatomists</i>	387
<i>Special Articles:</i>	
<i>Cortical Representation of Tactile Sensibility as Indicated by Cortical Potentials:</i> WADE H. MARSHALL, CLINTON N. WOOLSEY and DR. PHILIP BARD. <i>Quantity Ultracentrifugation with Intense Fields:</i> DR. RALPH W. G. WYCKOFF. <i>Breaking the Rest Period of the Strawberry by Long Days at High Temperatures:</i> DR. GEO. M. DARROW	388
<i>Science News</i>	10

SCIENCE: A Weekly Journal devoted to the Advancement of Science, edited by J. McKEEN CATTELL and published every Friday by

THE SCIENCE PRESS

New York City: Grand Central Terminal
Lancaster, Pa. Garrison, N. Y.
Annual Subscription, \$6.00 Single Copies, 15 Cts.

SCIENCE is the official organ of the American Association for the Advancement of Science. Information regarding membership in the Association may be secured from the office of the permanent secretary, in the Smithsonian Institution Building, Washington, D. C.

EMBRYOLOGY AND ITS RELATIONS¹

By Professor ROSS G. HARRISON

OSBORN ZOOLOGICAL LABORATORY, YALE UNIVERSITY

It is my impression that what is expected of a retiring chairman is that he inform the section upon the "state of the nation" in his branch of science. Were I to attempt this in a phrase I should say that it was that of the Tower of Babel. On our program papers are listed by the hundred and are presented in various scientific languages, only one or two of which I can speak, and many speakers are talking at once, to the bewilderment of would-be listeners.

In contrast let us go back to the corresponding meeting forty years ago, when the American Society of Zoologists was called the American Morphological Society. Thirty-five papers were presented, four of them by title. A number of them dealt with the

centrosome. There were several on biometry, but only one experimental study—that by Davenport on "The Rôle of Water in Growth." Dr. Minot described his newly invented rotary microtome. It is safe to say that had a Rip Van Winkle gone to sleep after that meeting and not awakened until now, he would have scarcely understood any of the papers on this year's program.

One wonders about the origin of all this present commotion, whether it does not go back to the instincts of primitive man—the nomadic hunter and the unskilled tiller of the soil. In his contact with nature he must have been impressed by the great diversity of living creatures as compared with the inorganic, and by their mysterious coming and going. Naturally he was most interested in those animals and plants that afforded food or were otherwise of practical im-

¹ Address of the retiring vice-president and chairman of the Section on Zoological Sciences, American Association for the Advancement of Science, Atlantic City, December 30, 1936.



"far above the average"

HILL, OVERHOLTS AND POPP'S

BOTANY

A Textbook for Colleges

By J. BEN HILL, LEE O. OVERHOLTS and HENRY W. POPP

Department of Botany, The Pennsylvania State College and
the Pennsylvania State Agricultural Experiment Station

McGRAW-HILL PUBLICATIONS IN THE AGRICULTURAL AND BOTANICAL SCIENCES

675 pages, 6 x 9, 336 illustrations. \$4.00

Seldom has a new textbook in any field been greeted with such immediate and unqualified praise. The following comments are typical of the many we have received from teachers throughout the country.

"The botany textbook by Professor J. Ben Hill, Lee O. Overholts and Henry W. Popp of the Pennsylvania State College looks very interesting, so much so that I shall use it next semester. The illustrations, especially the excellent photographs, are unusually good."

DR. WILLIAM SEIFRIZ, University of Pennsylvania

"It impresses me as being the most thorough, complete and up-to-date text available, and I think I shall use it."

PROFESSOR WILLIAM H. SAWYER, JR., Bates College

"So delighted I am with the content and arrangement of the book, I am writing at this time to say that I shall use it in my class next session in the course in general botany."

PROFESSOR ROBERT F. SMART, University of Richmond

"This text coming as it does from a strong department of botany will be welcomed by college teachers because of its balanced, comprehensive and up-to-date treatment of the elements of plant science. In a subject developing so rapidly it becomes increasingly difficult to cover the field but authors and publishers have done a good job and have brought out a comprehensive, well organized volume."

PROFESSOR ROBERT B. WYLE, State University of Iowa

"It seems far above the average book used as a college botany, and I shall have no hesitation in including it in the list of books recommended for some of our classes."

PROFESSOR JOHN DAVIDSON, University of British Columbia

Send for a copy on approval

McGRAW-HILL BOOK COMPANY, INC.

330 West 42nd Street, New York

Aldwych House, London, W.C.2

*Outstanding Wiley Successes in the Sciences***1 Botany***HOLMAN and ROBBINS'***TEXTBOOK OF
GENERAL BOTANY**

Third Edition (1934)

By the late RICHARD M. HOLMAN

and WILFRED W. ROBBINS

*Professor of Botany, College of Agriculture
University of California***166**
Adoptions
in 1936-37*Reaches its greatest number of users since publication*

Since it was first published in 1924 this book has steadily grown in popularity until it is now foremost in its field—a classic among botany textbooks—considered by teachers “distinctly head and shoulders above any other American textbook of botany.” This year the number of adoptions has again increased to an unprecedented total.

Why “Holman and Robbins” leads the field

“We have been using Holman and Robbins ‘Textbook of General Botany’ in our classes for several years, and we like it for the following reasons: (1) Because of its general organization and selection of subject matter; (2) because of its well-balanced nature as it treats of the various phases of plant life; (3) because of its clear, concise descriptions, and the fresh and interesting manner of presentation; (4) because of the choice and excellence of its illustrations; (5) because on the whole, for our purpose, we find the book superior to any other we have seen.”

—N. L. HUFF, *University of Minnesota*

626 pages

463 illustrations

6 x 9

\$4.00

John Wiley & Sons, Inc., 440 Fourth Ave., New York