

SCIENCE

VOL. 77

FRIDAY, JANUARY 13, 1933

No. 1985

<i>The New Anthropogeny—Twenty-five Stages of Vertebrate Evolution, from Silurian Chordate to Man:</i> DR. WILLIAM K. GREGORY	29	<i>Scientific Apparatus and Laboratory Methods:</i>	
<i>Obituary:</i>		<i>An Apparatus for Determining the Absorption of Carbon Dioxide by Leaves under Natural Conditions:</i> PROFESSOR A. J. HEINICKE and M. B. HOFFMAN	55
<i>John Joseph Carty—an Appreciation:</i> DR. F. B. JEWETT	41	<i>Special Articles:</i>	
<i>Scientific Events:</i>		<i>The Function of the Adrenal Cortical Hormone and the Cause of Death from Adrenal Insufficiency:</i> PROFESSOR W. W. SWINGLE, J. J. PFIFFNER, H. M. VARS, P. A. BOTT and W. M. PARKINS	58
<i>The Natural History of Mount Everest; Forestry Program for the Southeastern States; The Wisconsin Alumni Research Foundation; The Pacific Division of the American Association for the Advancement of Science</i>	43	<i>Science News</i>	8
<i>Scientific Notes and News</i>	45		
<i>Discussion:</i>			
<i>A Forgotten Evolutionist:</i> DR. S. J. HOLMES. <i>A Vicious Circle in Cytology:</i> PROFESSOR E. C. JEFFERY. <i>Twisted Trees and the Spiral Habit:</i> PROFESSOR WILLIAM SEIFRIZ. <i>The Extinct Lake San Augustin, New Mexico:</i> PROFESSOR WILLIAM E. POWERS	48		
<i>Scientific Books:</i>			
<i>Faraday's Diary:</i> PROFESSOR W. F. MAGIE	52		
<i>Societies and Meetings:</i>			
<i>The Texas Academy of Science:</i> H. B. PARKS. <i>The Oklahoma Academy of Science:</i> HORACE J. HARPER	54		

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.

THE NEW ANTHROPOGENY: TWENTY-FIVE STAGES OF VERTEBRATE EVOLUTION, FROM SILURIAN CHORDATE TO MAN¹

By Professor WILLIAM K. GREGORY

COLUMBIA UNIVERSITY AND AMERICAN MUSEUM OF NATURAL HISTORY

THE subject of anthropogeny, as it was developed at the hands of Ernst Haeckel, involved an attempt to read the earlier stages of prehuman evolution largely from the data supplied by human and comparative embryology. Thus its main postulate was the so-called "law of recapitulation." But the attacks of modern zoologists on this "law" seem to have led, in this country at least, to a loss of confidence in Haeckel's chief conclusions. In certain quarters there has sprung up a regular epidemic, which may be named *Haeckelophobia*.

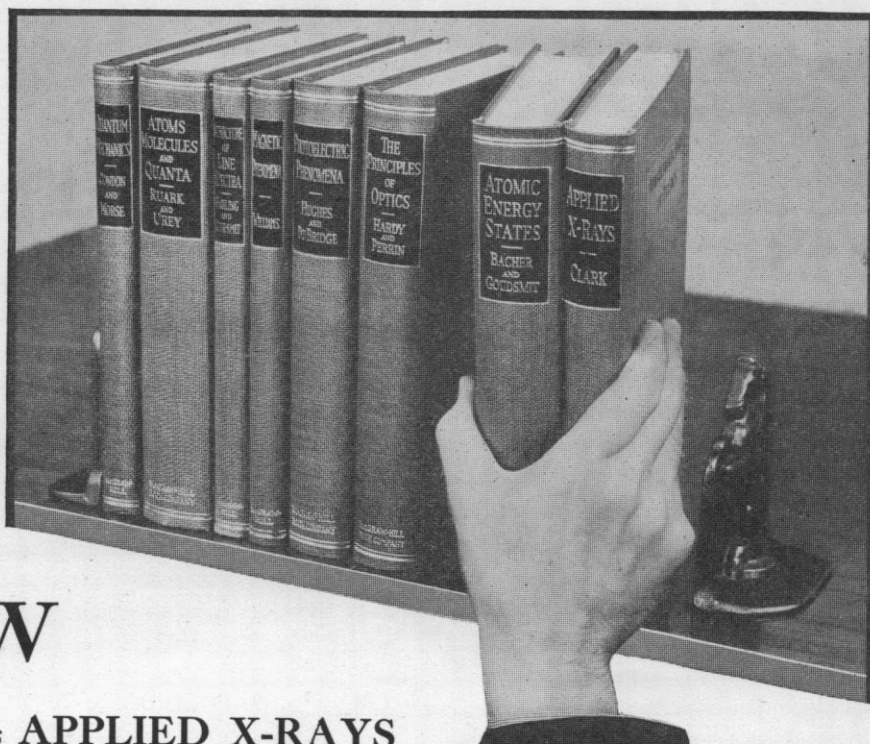
Meanwhile the new anthropogeny has been gradually

¹ Address of the vice-president and retiring chairman of Section H—Anthropology, American Association for the Advancement of Science, Atlantic City, December 29, 1932.

taking shape. But before speaking of its origins and tentative results to date, it might be well to note that a humble exponent of the new doctrine is liable to experience a slightly guilty feeling if he finds himself obliged to speak in any official gathering of his scientific brethren. For example, the brethren of the orthodox anthropologist sect are always piously busy, wielding their magic measuring wands and ringing the bells on their magic calculators, or thinking machines, while the poor anthropogenist stands idly by and must confess that he is not primarily bent on measuring or counting anything, but only in piecing together the broken story of the "big parade" that nature has staged across the ages.

Another contrast between the anthropogenist and

Now



Clark's **APPLIED X-RAYS**
and *Bacher and Goudsmit's* **ATOMIC ENERGY STATES**
are added to
a series of growing importance
International Series in Physics

APPLIED X-RAYS

By **George L. Clark**. Second edition. 470 pages, \$5.00

ATOMIC ENERGY STATES

Compiled by **Robert F. Bacher** and **Samuel Goudsmit**. 562 pages. \$6.00

THE PRINCIPLES OF OPTICS

By **Arthur C. Hardy** and **Fred H. Perrin**. 632 pages. \$6.00

PHOTOELECTRIC

PHENOMENA

By **Arthur L. Hughes** and **Lee A. DuBridge**. 531 pages. \$5.00

ATOMS, MOLECULES AND QUANTA

By **Arthur E. Ruark** and **Harold C. Urey**. 780 pages. \$7.00

THE STRUCTURE OF LINE SPECTRA

By **Linus Pauling** and **Samuel Goudsmit**. 263 pages. \$3.50

QUANTUM MECHANICS

By **Edward U. Condon** and **Philip M. Morse**. 250 pages. \$3.00

MAGNETIC PHENOMENA

By **Samuel R. Williams**. 230 pages. \$3.00

Send for copies on approval

McGRAW-HILL BOOK COMPANY, Inc.

330 West 42nd Street, New York

Aldwych House, London, W. C. 2