

SCIENCE

VOL. LXIX

APRIL 19, 1929

No. 1790

CONTENTS

<i>The Fiftieth Anniversary of the Foundation of the U. S. Geological Survey:</i>	
<i>Science in the Government:</i> THE HONORABLE RAY LYMAN WILBUR	409
<i>Thomas Jefferson, the Pioneer of American Paleontology:</i> DR. HENRY FAIRFIELD OSBORN	410
<i>The Potentials of Entomology:</i> PROFESSOR ROYAL N. CHAPMAN	413
<i>Scientific Events:</i>	
<i>The New Harvard Chemical Laboratories; The Southwest Arboretum of the Boyce Thompson Institute for Plant Research; The Fifth International Botanical Congress; Symposia on Theoretical Physics and Chemical Kinetics</i>	418
<i>Scientific Notes and News</i>	420
<i>University and Educational Notes</i>	424
<i>Discussion and Correspondence:</i>	
<i>Is Life Quantity?:</i> PROFESSOR WILLIAM E. RITTER. <i>Hermaphroditism in Arbacia:</i> DR. L. V. HEILBRUNN. <i>Microphotograph or Photomicrograph?:</i> DR. C. H. GODFREY. <i>When is Normal Normal?:</i> O. L. TINKLEPAUGH	425
<i>Scientific Books:</i>	
<i>Scientific Papers of William Bateson:</i> PROFESSOR W. E. CASTLE	428
<i>The American Geophysical Union:</i> JNO. A. FLEMING	431
<i>Scientific Apparatus and Laboratory Methods:</i>	
<i>The In Vivo Cultivation of Intestinal Protozoa in Parasite-free Chicks:</i> PROFESSOR ROBERT HEGNER	432
<i>Special Articles:</i>	
<i>Is the Twelve-Hour Variation in Atmospheric Pressure an Electric Phenomenon?:</i> PROFESSOR FERNANDO SANFORD	434
<i>Science News</i>	x

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 FIFTIETH ANNIVERSARY OF THE U. S. GEOLOGICAL SURVEY SCIENCE IN THE GOVERNMENT¹

OUR civilization is being made over right before our eyes under the stimulation of the forces set loose by discovery, research and invention. This new physical world has a firm basis upon undeviating universal laws. It is probably true that we have available a mere fragment of the great structure of knowledge which will eventually be brought into the service of man. Our view-points are rapidly changing. Old assumptions, theories and dogmas are being rapidly pushed out of our minds. In this period of mental ferment, shams have been exposed, the taboos of centuries released, and much has been brought up for discussion which was considered settled by our forefathers.

In the field of government there has been a rapid increase of democracy. To an increasing degree, science has become definitely associated with the development and functions of government. This is the age of democracy and science. Science has no sympathy with substitutes for the truth. Science is giving the human family a unique and unexampled service, and through it the human mind has been vastly increased in its range and mental power.

With the development of the democratic idea and the elimination to a large degree of the divine right of rulers, the necessity of wise leadership selected by democratic processes becomes a paramount need. This is the day of the expert. The man who knows must be recognized and used. In the fields of science the experts can be trained and developed, but such experts require opportunity for long years of study and they need constant exposure to those who are devoting their lives to research; in fact, progress in our modern civilization is going to depend upon the experimental method rather than upon catchwords, aphorisms or the persistent broadcasting of untried ideas. So close to-day is the link between science and its laboratories and the government that we can measure the progress of a civilization by its economic capacity to support laboratories and by the quality of the intellects brought into them.

It has been customary in government with the needs of agriculture, public health and in other fields to set aside a certain amount of money and certain

¹ Address delivered in Washington on March 21, 1929, upon the occasion of the celebration of the fiftieth anniversary of the foundation of the U. S. Geological Survey.

Science

69 (1790)

Science **69** (1790), xii-436.

ARTICLE TOOLS

<http://science.sciencemag.org/content/69/1790.citation>

PERMISSIONS

<http://www.sciencemag.org/help/reprints-and-permissions>

Use of this article is subject to the [Terms of Service](#)

Science (print ISSN 0036-8075; online ISSN 1095-9203) is published by the American Association for the Advancement of Science, 1200 New York Avenue NW, Washington, DC 20005. 2017 © The Authors, some rights reserved; exclusive licensee American Association for the Advancement of Science. No claim to original U.S. Government Works. The title *Science* is a registered trademark of AAAS.