

# SCIENCE

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## CONTENTS.

<i>The American Association for the Advancement of Science:</i>	
<i>Science and Economics:</i> PRESIDENT CARROLL D. WRIGHT.....	897
<i>University Registration Statistics:</i> DR. RUDOLF TOMBO, JR.....	909
<i>American Ornithologists' Union:</i> JOHN H. SAGE	915
<i>Scientific Books:—</i>	
<i>Seward on the Jurassic Flora:</i> DR. LESTER F. WARD. <i>Gratacap on the Geology of the City of New York:</i> PROFESSOR J. F. KEMP. <i>Stereochemie:</i> T. W. R.....	917
<i>Scientific Journals and Articles.....</i>	921
<i>Societies and Academies:—</i>	
<i>The Chemical Society of Washington:</i> A. SEIDELL. <i>The Philosophical Society of Washington:</i> CHARLES K. WEAD. <i>The Torrey Botanical Club:</i> EDWARD W. BERRY.....	921
<i>Discussion and Correspondence:—</i>	
<i>The Nomenclature of Physiography:</i> DR. ROBT. T. HILL. <i>A Peculiar Habit of the Badger:</i> THEO. B. COMSTOCK.....	923
<i>Special Articles:—</i>	
<i>Amphibia versus Batrachia:</i> DR. LEONHARD STEJNEGER. <i>An Adaptation of the Card Catalogue Cabinet:</i> C. L. MARLATT.....	924
<i>Quotations:—</i>	
<i>Convocation Week at the University of Pennsylvania; Compulsory Greek at Oxford and Cambridge .....</i>	926
<i>Notes on Entomology:</i> NATHAN BANKS.....	928
<i>International Cooperation in Solar Research</i>	930
<i>The Franklin Fund.....</i>	932
<i>Scientific Notes and News.....</i>	932
<i>University and Educational News.....</i>	936

MSS. intended for publication and books, etc., intended for review should be sent to the Editor of SCIENCE, Garrison-on-Hudson, N. Y.

## SCIENCE AND ECONOMICS.\*

IN science we find the dynamics of political economy, as well as many other branches of human knowledge and human speculation. That eminent prelate and statesman, James Cardinal Gibbons, at the dedication of McMahon Hall of Philosophy at the Catholic University of America a few years ago, said that many were of the opinion that the Mother Church did not welcome the results of scientific research—that there might be something to be feared relative to theology and religion in such research—but he asserted emphatically that the church welcomed all science and all revelations of science as new revelations of religion. His eminence recognized and appreciated the great changes in thought which had come over the world of intelligence during the last thirty or forty years, and that nothing could be revealed by science that did not reveal the hand of the great first cause; that science was God's instrument in teaching His handiwork to the human race.

The conflicts of science and religion, about which we heard so much a generation ago, have no place now in the thought of those who see in science such handiwork. We no longer look upon the earth as the spasmodic creation of a few days. Genesis becomes grand and beautiful poetry in place of alleged history. We see in it the traditions of primitive man in his attempt to account for creation. We see the eco-

\* Address of the retiring president of the American Association for the Advancement of Science, Philadelphia, December 28, 1904.

It is unusually complete and thorough in bibliographic detail. No one interested in the development of stereochemistry can afford to be unfamiliar with it, and to all scientific men it must be of interest as an evidence of the extraordinary fruitfulness during the last ten years of an imaginative hypothesis.

T. W. R.

#### SCIENTIFIC JOURNALS AND ARTICLES.

THE last number of the *Journal of Infectious Diseases* contains the following articles:

WARD J. MACNEAL: 'The Life History of *Trypanosoma Lewisi* and *Trypanosoma Brucei*.' (With Plates XI-XVII.)

FREDERICK A. BALDWIN: 'Pathological Anatomy of Experimental Nagana.'

WILDER TILSTON: 'The Blood in Measles.'

H. T. RICKETTS: 'The Reduction of Methylene Blue by Nervous Tissue.'

WILLIAM DODGE FROST: 'The Antagonism Exhibited by Certain Saprophytic Bacteria against the *Bacillus Typhosus* Gaffky.' (With Plate XVIII., Figs. 1, 2.)

E. O. JORDAN, H. L. RUSSELL, F. R. ZEIT: 'The Longevity of the Typhoid Bacillus in Water.'

ALICE HAMILTON: 'The Question of Virulence among the So-called Pseudodiphtheria Bacilli.'

RUFUS I. COLE: 'Experimental Streptococcus Arthritis in Relation to the Etiology of Acute Articular Rheumatism.'

THE contents of *The American Journal of Anatomy* for December, containing 13 plates and 66 text figures, are as follows: Mall, 'On the Development of the Blood-vessels of the Brain in the Human Embryo'; Dwight, 'The Size of the Articular Surfaces of the Long Bones as Characteristic of Sex; an Anthropological Study'; McMurrich, 'The Phylogeny of the Crural Flexors'; Flint, 'The Framework of the Glandula Parathyroidea'; Streetter, 'The Development of the Cranial and Spinal Nerves in the Occipital Region of the Human Embryo'; Price, 'A Further Study of the Development of the Excretory Organs in *Bdellostoma Stouti*.'

BEGINNING with the number for January 1905, Professor Richard Elwood Dodge of the Teachers College, Columbia University, New York City, assumes full responsibility for the editing and publishing of the *Journal of*

*Geography*. The *Journal* will continue in its present form and character and will deal with geographic education in elementary, secondary and normal schools. All communications should be addressed to the editor at the address given above.

#### SOCIETIES AND ACADEMIES.

##### THE CHEMICAL SOCIETY OF WASHINGTON.

THE 153d regular meeting was called to order by the president at 8:10 o'clock, Thursday evening, December 8, 1904. There were forty persons in attendance. The program for the evening consisted of the following three papers:

'Some American Contributions to Technical Chemistry.' Dr. Marcus Benjamin. In this paper Doctor Benjamin presented a summary of the principal advances made in chemistry applied to the arts in this country from the coming of Priestley in 1774 to the present time, beginning with the description of Count Rumford's work and including the oxyhydrogen blow-pipe by Robert Hare, the vulcanization of sulphur by Charles Good-year, the processes invented by Castner as well as many others.

This paper has adequate footnotes, giving references to biographical sketches of those who had died, and exact reference to papers discussing the invention while the inventor was still living.

The second paper, entitled 'Association of Boron and Nitrogen in Nature,' was presented by Professor F. W. Clarke. Numerous instances were cited to show that wherever boron occurs in volcanic water, compounds of ammonium are also found. The most plausible hypothesis to account for this occurrence is that of Warington, which is based upon the assumption that boron nitrite (BN) exists at great depths in the earth and is acted upon by volcanic waters. In southern California and in Chili the borates occur associated with sodium nitrate, and it was suggested that these deposits, which are lake deposits, may have derived their boron and nitrogen from hot springs which are common in those regions. The borates at Stassfurt are undoubt-