

SCIENCE

A WEEKLY JOURNAL DEVOTED TO THE ADVANCEMENT OF SCIENCE, PUBLISHING THE
OFFICIAL NOTICES AND PROCEEDINGS OF THE AMERICAN ASSOCIATION
FOR THE ADVANCEMENT OF SCIENCE.

FRIDAY, OCTOBER 7, 1904.

CONTENTS:

<i>The Sciences of the Ideal:</i> PROFESSOR JOSIAH ROYCE	449
<i>Scientific Books:—</i>	
<i>The Harriman Alaska Expedition—Crustaceans:</i> DR. W. H. DALL. <i>Cohnheim on Chemie der Eiweisskörper:</i> PROFESSOR LA-FAYETTE B. MENDEL.....	462
<i>Scientific Journals and Articles.....</i>	465
<i>Discussion and Correspondence:—</i>	
<i>A Recent Paleontological Induction:</i> DR. CHARLES R. EASTMAN, JULIUS HENDERSON	465
<i>Special Articles:—</i>	
<i>Determination of Longitude:</i> EDWIN SMITH	466
<i>Botanical Notes:—</i>	
<i>Systematic Notes; Studies of Sexuality in Black Molds; Egg Formation in Green Felt; Recent Forestry Bulletins:</i> PROFESSOR CHARLES E. BESSEY.....	471
<i>Declaration of the National Educational Association</i>	474
<i>Cooperation in Magnetic and Allied Observations during the Total Solar Eclipse:</i> DR. L. A. BAUER.....	475
<i>The Cotton Boll Weevil.....</i>	475
<i>Scientific Notes and News.....</i>	476
<i>University and Educational News.....</i>	480

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

THE SCIENCES OF THE IDEAL.*

I SHALL not attempt, in this address, either to justify or to criticize the name, normative science, under which the doc-

* Address for the St. Louis Congress of Arts and Science, before the Division of Normative Science.

trines which constitute this division are grouped. It is enough for my purpose to recognize at the outset that I am required, by the plans of this congress, to explain what scientific interests seem to me to be common to the work of the philosophers and of the mathematicians. The task is one which makes severe demands upon the indulgence of the listener, and upon the expository powers of the speaker, but it is a task for which the present age has well prepared the way. The spirit which Descartes and Leibniz illustrated seems likely soon to become, in a new and higher sense, prominent in science. The mathematicians are becoming more and more philosophical. The philosophers, in the near future, will become, I believe, more and more mathematical. It is my office to indicate, as well as the brief time and my poor powers may permit, why this ought to be so.

To this end I shall first point out what is that most general community of interest which unites all the sciences that belong to our division. Then I shall indicate what type of recent and special scientific work most obviously bears upon the tasks of all of us alike. Thirdly, I shall state some results and problems to which this type of scientific work has given rise, and shall try to show what promise we have of an early increase of insight regarding our common interests.

I.

The most general community of interest which unites the various scientific activities

compound (phosphorhaltiges Eiweiss). The vegetable proteids have not yet received the attention which, in the reviewer's opinion, they deserve. The crystallized vegetable proteids are dismissed with a few words (p. 149) and without any adequate references to the methods of obtaining them, although their preparation has already assumed commercial proportions; the crystallization of egg- and serum-albumin, on the other hand, is carefully considered. It must be said to the credit of Professor Cohnheim that he has, in contrast to most continental writers, shown appreciation of the important work by American investigators in the domain of the vegetable proteids in the present edition.

The greatly enlarged chapter (II.) on cleavage products, beginning with a brief historical review, is excellent in every respect and ought to be warmly welcomed for its exhaustive reference list. The compounds obtained by the action of acids or digestive enzymes are very properly discussed in a separate group as fundamental (primäre Spaltungsprodukte); and the quantitative relations are compiled so far as known. The existence of diaminoacetic acid (Drechsel) is now rendered doubtful (p. 33). In principle the distinction between anti- and hemi-proteid derivatives is still maintained. The chapter on albumoses and peptones has been adapted to the modified system of analysis and nomenclature introduced by the Hofmeister school, the so-called peptids and plasteins also being added. A brief résumé of the behavior of proteids towards the aniline dyes (p. 114) will interest histologists.

The special part of the book, dealing with the individual proteids, is more encyclopædic in character and the innovations are naturally less conspicuous. One receives everywhere an impression of first-hand acquaintance with the literature and must admire the industry and good judgment of the author. Finally, even the most casual examination of this work of three hundred pages can not fail to impress the reader with the growing importance and interest which the study of the proteids is attaining in biology. LAFAYETTE B. MENDEL.

SHEFFIELD SCIENTIFIC SCHOOL,
YALE UNIVERSITY.

SCIENTIFIC JOURNALS AND ARTICLES.

The *American Journal of Science* for October contains the following articles:

'New Devonian Formation in Colorado': W. CROSS.

'Upper Devonian Fish Remains from Colorado': C. R. EASTMAN.

'Fossil Turtles belonging to the Marsh Collection in Yale University Museum': O. P. HAY.

'Air Radiation': C. C. HUTCHINS and J. C. PEARSON.

'Uintacrinus and Hemiaster in the Vancouver Cretaceous': J. F. WHITEAVES.

'Separation of the most Volatile Gases from the Air without Liquefaction': J. DEWAR.

'Absorption and Thermal Evolution of Gases occluded in Charcoal at Low Temperatures': J. DEWAR.

'Studies in the Cyperaceæ': T. HOLM.

The Popular Science Monthly for September contains articles on 'The Development of the Theory of Electrolytic Dissociation,' by Svante Arrhenius; the 'Conservation of Human Energy, Preservation of Beauty,' by J. Madison Taylor; 'Art in Industry,' by Frank T. Carlton; 'Some Plants which Entrap Insects,' by Forrest Shreve. This last is very fully illustrated, and calls attention to some of the insects that are adapted for life on or about some insectivorous plants. 'Hebrew, Magyar and Levantine Immigration' is discussed by Allan McLaughlin in an article which is not very encouraging for the United States, in general, and decidedly discouraging to dwellers in New York. Richard L. Sandwick makes a plea for 'More Men (as teachers) in Public Schools,' Charles R. Eastman presents 'A Second Century Criticism of Virgil's Etna' and Robert MacDougall considers 'The Evolution of the Human Hand.' The concluding article, by Simon Newcomb, tells of the International Congress of Arts and Science at St. Louis.

DISCUSSION AND CORRESPONDENCE.

A RECENT PALEONTOLOGICAL INDUCTION.

THE concept of arboreal 'horses' already thrice discussed in the current volume of *SCIENCE*, or even concepts of fabled Pegasi, are, from a philosophical standpoint, rational and legitimate products of human conscious-