

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, JANUARY, 27, 1905.

CONTENTS:

The American Association for the Advancement of Science:—

Cooperation among American Geographical Societies: PROFESSOR ISRAEL C. RUSSELL.. 121

Section E—Geology and Geography: DR. EDMUND OTIS HOVEY..... 135

Section G—Botany: PROFESSOR FRANCIS E. LLOYD 138

Scientific Books:—

Zoology in the International Catalogue of Scientific Literature: PROFESSOR HENRY B. WARD 147

Scientific Journals and Articles..... 150

Societies and Academies:—

The New York Section of the American Chemical Society: DR. F. H. POUGH. *The Torrey Botanical Club:* EDWARD W. BERRY. *The Science Club of Northwestern University:* FLOYD FIELD..... 150

Discussion and Correspondence:—

The Epidiascope: PROFESSOR A. D. MEAD.. 152

Quotations:—

Another Cancer Serum..... 153

Special Articles:—

A Model illustrating Hittorf's Theory of the Migration Velocities of Ions: DR. FREDERICK H. GETMAN..... 153

The George Washington University and the George Washington Memorial Association. 155

The Porto Rico Experiment Station..... 156

The Eighteenth Session of the Marine Biological Laboratory 156

Scientific Notes and News..... 157

University and Educational News..... 160

THE AMERICAN ASSOCIATION FOR THE
ADVANCEMENT OF SCIENCE.

COOPERATION AMONG AMERICAN GEO-
GRAPHICAL SOCIETIES.*

IN considering the many ways in which the science having as its special province the study of the earth's surface can be enhanced and its service to mankind rendered more efficient through the agency of geographical societies, five subordinate themes present themselves for consideration. These are: The scope and aim of geography; the methods of gathering and distributing geographical knowledge; the functions of geographical societies; the present status of the geographical societies in America; and in what ways can the geographical societies of this country increase their influence and enlarge their usefulness?

THE SCOPE AND AIM OF GEOGRAPHY.

The proportions of a great mountain seem to vary according to the point of view of the beholder, and the impressions it makes on various minds also vary, as may be said, in reference to their sensitiveness to thought-waves of different length. To the dweller in a vale at a mountain's base, its sublime slopes do not present the same picture that is beheld by the traveler on a neighboring plain; the impressions its weathered battlements awaken in the mind of the untutored savage have but a faint resemblance to the train of thought started

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

* Address of the vice-president and chairman of Section E—Geology and Geography, Philadelphia, December, 1904.

owed its selection to the occurrence in the title of the phrase 'cold-blooded animals.'

It would require undue space to demonstrate here what the individual observer can easily verify, namely, that there are characteristic differences in the method of treatment given the material by different national bureaus. Some have clearly over indexed, others have been as distinctly deficient. Among German references it was difficult to find errors in classification, while among those of some other nations they were all too frequent.

As a result of a most careful study of this work one is forced to conclude:

1. With respect to promptness, completeness and accuracy the results are distinctly inferior to those already achieved for zoology by several bibliographic agencies.

2. A subsidy for any one of the existing agencies equal to a fraction of the amount spent on this part of the 'International Catalogue' would yield much greater results in giving the investigator actual control of the literature in zoology.

3. The effort to construct a bibliography from materials furnished by numerous national bureaus will not result in the production of a consistent work.

4. A useful bibliography in this field can not be prepared by mere cataloguers, however expert they may be, and however great the means at their disposal for the prosecution of the work.

5. The contention of Weltner and others is abundantly justified that only the specialist in zoology can make a satisfactory analysis of zoological publications, and only he should be allowed to control such work.

6. It is most important to add to the mere record of titles a brief critical annotation regarding the subject matter of each paper. Additional subsidies should be devoted to the improvement of existing agencies rather than to the creation of new organizations.

HENRY B. WARD.

UNIVERSITY OF NEBRASKA.

SCIENTIFIC JOURNALS AND ARTICLES.

The *Museums Journal* of Great Britain for December has an excellent article 'On Colors

in Museums,' by Hans Dedekam, dealing at some length with the question of what are the best colors for backgrounds for various exhibits. The balance of the number is devoted to reviews and notes, and includes a good review of Dr. Meyer's recent memoir.

THE contents of the January number of the *American Journal of Mathematics* is as follows:

'Some Properties of a Generalized Hypergeometric Function,' by F. H. Jackson.

'Relation between Real and Complex Groups with Respect to their Structure and Continuity,' by Dr. S. E. Slocum.

'Determination of all the Characteristic Subgroups of any Abelian Group,' by G. A. Miller.

'Collineations whose Characteristic Determinants have Linear Elementary Divisors with an Application to Quadratic Forms,' by A. B. Coble.

'Concerning Certain Elliptic Modular Functions of Square Rank,' by John A. Miller.

'Minors of Axi-symmetric Determinants,' by E. J. Nanson.

'On the Forms of Sextic Scrolls having a Rectilinear Directrix,' by Virgil Snyder.

SOCIETIES AND ACADEMIES.

THE NEW YORK SECTION OF THE AMERICAN CHEMICAL SOCIETY.

A REGULAR meeting of the New York Section of the American Chemical Society was held at the Chemists' Club, Friday night, December 9. The following councilors were elected from the New York Section: Messrs. Leo Baekeland, F. D. Dodge, T. J. Parker, W. J. Schieffelin and Hugo Schweitzer.

The regular program of the evening was then taken up and the following papers presented:

The Art of Sizing Paper with Rosin Soaps.

MARTIN L. GRIFFIN.

The subject is introduced by some general considerations pertaining to sizing paper, but deals principally with the claims frequently made, that acid or free rosin sizes are most desired, and that it is the free rosin that is the effective sizing agent in paper.

The author has made a large number of experiments, sizing paper stock in different ways with different reagents, showing conclusively that this is not the case, that free rosin