

SCIENCE

A WEEKLY JOURNAL DEVOTED TO THE ADVANCEMENT OF SCIENCE, PUBLISHING THE
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FRIDAY, JULY 10, 1903.

THE WORK OF THE COAST AND GEODETIC SURVEY.*

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It is a high privilege to address you to-day on the work of the oldest bureau of applied science under the government, a bureau which invokes the aid of science in its intensely practical work, where theory and practice go hand in hand. It seems reasonable to hope that some inspiration may be drawn from an account of its work, by young men who are about to take up the pleasures and burdens of a share in the world's work after going forth from an educational institution which announces as the underlying principle which controls its method, the advance of the practical, side by side with the scientific. It is particularly pleasant to speak of the survey in a locality where such familiar names as Lovering, Bowditch and Pierce will be recognized as among those who helped it in its earlier struggles for recognition, and that of a statesman like Charles Sumner as one of its staunch supporters, those of Louis and Alexander Agassiz, who utilized the opportunities afforded by the survey to further the aims of science and to add luster to the fame of its work by their association with it, and where it will be remembered that if Massachusetts gave a Peirce to the survey, the survey gave a Mendenhall and a Pritchett to Massachusetts.

MSS. intended for publication and books, etc., intended for review should be sent to the responsible editor, Professor J. McKeen Cattell, Garrison-on-Hudson, N. Y.

* Commencement address delivered before the Worcester Polytechnic Institute.

attempt being made to discuss the vast array of species in the Micro-lepidoptera.

The book is divided into two parts, the first fifty-six pages being devoted to the six chapters of Part I. In these chapters general directions for collecting, studying and rearing caterpillars are given—directions of great value to the beginner and of decided suggestiveness to the experienced entomologist. The remaining eleven chapters are devoted to the biographies of many species of Sphingidæ, Arctiidæ, Saturniidæ, Ceratocampidæ, Limacodidæ, Notodontidæ and Noctuidæ. These life histories are written in simple, lucid English, each insect being described in its progress from the egg to the adult in a way that any one can understand. The usefulness of the book is greatly increased by the admirable illustrations from photographs of living caterpillars and spread moths by Miss Edith Eliot. These are certainly among the best photographs of living insects that have been published.

The authors and the illustrator are to be congratulated on having prepared a book which will be of use not only to entomologists, but also to great numbers of teachers and pupils interested in nature study in the schools.

CLARENCE M. WEED.

SCIENTIFIC JOURNALS AND ARTICLES.

THE June number (volume 9, number 9) of the *Bulletin of the American Mathematical Society* contains the following articles: 'Singular Points of Functions which Satisfy Partial Differential Equations of the Elliptic Type,' by M. Bôcher; 'Errata in Gauss's *Tafel der Anzahl der Classen binärer quadratischer Formen*,' by A. M. Nash (communicated by E. B. Elliott); 'The Logarithm as a Direct Function,' by E. McClintock; review of Klein-Fricke's 'Automorphic Functions,' by J. I. Hutchinson; review of Loria's 'Special Plane Curves,' by E. B. Wilson; 'Shorter Notices'; 'Notes'; 'New Publications.' The July number of the *Bulletin* contains: Reports of the April meeting and sectional meetings of the society; 'A Fundamental Theorem with Respect to Transitive Substi-

tution Groups,' by G. A. Miller; 'The Characterization of Collineations,' by E. Kasner; review of Goursat's 'Cour d'Analyse,' by W. F. Osgood; 'Shorter Notices'; 'Notes,' and 'New Publications'; 'Twelfth Annual List of Published Papers' and index of volume 9.

THE July number (volume 4, number 3) of the *Transactions of the American Mathematical Society* contains: 'On the Point-Line as Element of Space: A Study of the Corresponding Bilinear Connex,' by E. Kasner; 'On the Formation of the Derivatives of the Lunar Coordinates with Respect to the Elements,' by E. W. Brown; 'On Reducible Groups,' by S. Epstein; 'Theory of Linear Associative Algebra,' by J. B. Shaw; 'Projective Coordinates,' by F. Morley; 'On an Extension of the 1894 Memoir of Stieltjes,' by E. B. Van Vleck; 'On the Variation of the Arbitrary and Given Constants in Dynamical Equations,' by E. W. Brown; 'The Primitive Groups of Class $2p$ which Contain a Substitution of Order p and degree $2p$,' by W. A. Manning; 'Complete Sets of Postulates for the Theory of Real Quantities,' by E. V. Huntington.

THE University of Chicago will begin the publication on January 1 of a journal of infectious diseases, edited by Professors Ludwig Hektoen and E. O. Jordan. It is said that the journal will be endowed with \$125,000 by Mr. and Mrs. Arnold F. McCormick.

SOCIETIES AND ACADEMIES.

THE UNIVERSITY OF CHICAGO MEDICAL CLUB.

THE University of Chicago Medical Club, organized October, 1901, began its second season with a special meeting on December 1, 1902, at which Professor G. N. Stewart, who has succeeded Professor Loeb in the chair of physiology at the university, presented an interesting paper on 'Problems and Methods of Modern Physiology.'

On January 19, 1903, the club held its first regular meeting for the season, electing as officers for the year, Lewellys F. Barker, president, and Frank R. Lillie, secretary.

Meetings of the club were held through the winter and spring, as usual, once a fortnight,