

SCIENCE

FRIDAY, SEPTEMBER 11, 1914

ADDRESS TO THE BOTANICAL SECTION OF
THE BRITISH ASSOCIATION FOR THE
ADVANCEMENT OF SCIENCE¹

CONTENTS

<i>Address to the Botanical Section of the British Association for the Advancement of Science: DR. F. O. BOWER.</i>	357
<i>The Decreasing Birth Rate of the German Empire: DR. A. ALLEMANN.</i>	372
<i>Patent Medicines in Great Britain.</i>	374
<i>The Twenty-fifth Anniversary of the Missouri Botanical Garden.</i>	375
<i>Scientific Notes and News.</i>	376
<i>University and Educational News.</i>	378
<i>Discussion and Correspondence:—</i>	
<i>Do Azotobacter Nitrify? DR. WM. P. HEAD- DEN. Northern Lights in Summer: ALBERT B. REAGAN.</i>	379
<i>Scientific Books:—</i>	
<i>The Cambridge Manuals of Science and Literature: PROFESSOR T. D. A. COCKERELL. The American College: DR. F. P. KEPPEL.</i>	381
<i>Scientific Journals and Articles.</i>	383
<i>Special Articles:—</i>	
<i>The Measurement of Changes in the Rate of Fecundity of the Individual Fowl: DR. RAYMOND PEARL.</i>	383
<i>The North Carolina Academy of Science: DR. E. W. GUDGER.</i>	384

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

To preside over the Botanical Section on the occasion of its first meeting in Australia is no slight honor, though it also imposes no small responsibility. We members from Great Britain have a deep sense of the advantage which we derive from visiting these distant shores. I am doubtful whether any scientific profit we can confer by our coming here can balance that which we receive; while over and above this is the personal kindness of the Australian welcome, which on behalf of the visitors of this section from the old country I take this opportunity of gratefully acknowledging. Of the members of the British Association, those who pursue the national sciences may expect to gain most by their experiences here; and perhaps it is the botanists who stand to come off best of all. Living as most of us do in a country of old cultivation, the vegetation of which has been controlled, transformed, and from the natural floristic point of view almost ruined by the hand of man, it is with delight and expectation that we visit a land not yet spoiled. To those who study ecology, that branch of the science which regards vegetation collectively as the natural resultant of its external circumstances, the antithesis will come home with special strength, and the opportunity now before them of seeing nature in her pristine state will not, I am sure, be thrown away.

I may be allowed here to express to the Australian members of the Section my regret that the presidency for this occasion

¹ Australia, 1914.

A Grammar of English Heraldry. By W. H. ST. JOHN HOPE.

One great merit of these books is that they frequently call attention to neglected subjects, or cut familiar subjects at unfamiliar angles. Thus they should be instrumental in releasing us from the tyranny of the conventional textbook. We ought to have a similar series in America, dealing with subjects of special interest to us, and using American examples in illustration.

T. D. A. COCKERELL

UNIVERSITY OF COLORADO

The American College: What it is and What it may Become. By CHARLES F. THWING. New York, Platt & Peck Co. 1914.

President Thwing's "The American College" is a handsome book of 294 pages. Perhaps because the author had already published sixteen volumes in the same general field, the seventeenth gives the reader the impression of being thin in some spots and padded in others. The author must have either an extraordinary memory or an excellent bibliographical card index on academic subjects. At any rate, the quotations scattered through his book, if a little too numerous, are unhackneyed and interesting. His academic experience has been great and his sympathies are keen. There is little or nothing in the book with which one would disagree, and some of the sections are particularly good, as, for example, the discussion of woman's education and the frank confession of our present ignorance as to the differences between men's minds and women's. The book, as a whole, however, suffers from a lack of definite "attack" on the part of the author. It seems addressed to nobody in particular—or rather to different people at different times, students, parents, trustees, millionaires.

Possibly these matters have been discussed in some of the other books by the president of Western Reserve University, but so far as the present volume is concerned there is no mention of what seems to the reviewer to be really the most significant thing to-day—the rapid differentiation throughout the United States of the colleges that mean business from those that do not. There seems to be insufficient

emphasis, also, on the need of developing a sense of individual responsibility on the part of the student, and on that most acute problem which faces every live college, that of distributing the new wine of the present vintage of thought with as little damage as possible to the bottles provided by the previous generation.

F. P. KEPPEL

SCIENTIFIC JOURNALS AND ARTICLES

THE contents of the September *Terrestrial Magnetism and Atmospheric Electricity* are as follows: "The Local Magnetic Constant and Its Variations," by L. A. Bauer; "Magnetic Declinations and Chart Corrections Observed on the *Carnegie* from Long Island Sound to Hammerfest, Norway, June to July, 1913," by L. A. Bauer and J. P. Ault; "The Atmospheric-Electric Observations made on the Second Cruise of the *Carnegie*," by C. W. Hewlett; "On Certain New Atmospheric-Electric Instruments and Methods," by W. F. G. Swann; Letters to Editor, Notes and Recent Publications.

SPECIAL ARTICLES

THE MEASUREMENT OF CHANGES IN THE RATE OF FECUNDITY OF THE INDIVIDUAL FOWL¹

1. THE purpose of this preliminary note is to call attention to a method of measuring and representing graphically changes in the intensity of ovarian activity, as indicated by rate of ovulation in the domestic fowl. It has been fully established² that if one considers the egg production records from a group or flock of hens as a whole there are observable regular and distinct cycles in the production. Thus, we have distinguished in former publications between winter, spring and summer cycles of flock production. It has not hitherto been possible to observe precisely or to measure any such cyclical changes (either

¹ Papers from the Biological Laboratory of the Maine Agricultural Experiment Station, No. 70.

² Cf. Pearl, R., and Surface, F. M., "A Biometrical Egg Production in the Domestic Fowl." II. Seasonal Distribution of Egg Production. U. S. Dept. Agr. Bur. Anim. Ind. Bulletin 110, Part II, pp. 81-170, 1911.