

to the thyreoid and thymus glands, and the difficult morphology of the coelom and peritoneum is dismissed with little more than a page and a half of actual reading matter.

In the review of the first part of the 'Lehrbuch' attention was called to the exceptionally numerous and gross typographical errors it contained. Two pages of errata contained in the first part form an introduction to the second part, and aroused hopes that due care had been taken that the latter should be tolerably free from errors of this sort. The hopes, however, were vain. Although the errors are less numerous and striking than in the earlier part yet they are sufficiently abundant to cause surprise. They are, as before, most frequent in connection with the proper names, but one must needs rub one's eyes and look again when one reads of the lamina scribosa of the ethmoid or of the hetopapancreas.

J. P. McM.

#### SOCIETIES AND ACADEMIES.

##### THE SAN FRANCISCO SECTION OF THE AMERICAN MATHEMATICAL SOCIETY.

THE sixth regular meeting of the San Francisco Section of the American Mathematical Society was held at the University of California on October 1, 1904. Fifteen members of the society were present. A number of other teachers of mathematics living in or near San Francisco attended both of the sessions. The following officers were elected for the ensuing year:

*Chairman*—Professor Haskell.

*Secretary*—Professor Miller.

*Program Committee*—Professors Haskell, Lehmer and Miller.

Major P. A. MacMahon member of the council of the London Mathematical Society, presided during the morning session, and Professor Irving Stringham during the afternoon session. The following papers were read:

PROFESSOR E. J. WILCZYNSKI: 'General projective theory of space curves.'

PROFESSOR L. M. HOSKINS: 'Stresses in an elastic sphere due to a superficial layer of heavy matter of uniform thickness bounded by a circle.'

DR. T. M. PUTNAM: 'Concerning the factors of

$(p^2 - 1)^2$  that are of the form  $px + 1$ , and allied problems.'

MAJOR P. A. MACMAHON: 'Groups of linear differential operators.'

PROFESSOR H. F. BLICHFELDT: 'On primitive continuous groups.'

PROFESSOR D. N. LEHMER: 'Figures invariant in space of three dimensions under the most general projective transformation.'

PROFESSOR G. A. MILLER: 'Determination of all the groups of order  $2^m$  which contain an odd number of cyclic subgroups of composite order.'

The program provided also for a 'Conference on recent investigations in the foundations of geometry.' This conference was opened by Professor Stringham, who was followed by Dr. J. H. McDonald. A number of the high school teachers took part in the discussion, which had reference mainly to the influence of the recent investigations on the teaching of elementary mathematics. The next meeting will be held at Stanford University, on February 25, 1905.

G. A. MILLER,

*Secretary of the Section.*

##### NEW YORK ACADEMY OF SCIENCES.

##### SECTION OF GEOLOGY AND MINERALOGY.

THE section met at the American Museum of Natural History on October 17, 1904, at 8:15 P.M., with Professor James F. Kemp in the chair.

The special business of the evening was the nomination by the section of officers to serve for the calendar year 1905. The following nominations were made: For chairman and vice-president of the academy, E. O. Hovey, of the American Museum of Natural History; for secretary, A. W. Grabau, of Columbia University.

The program of the evening consisted of a lecture by E. O. Hovey, on 'St. Vincent, British West Indies: The Eruptions of 1902 and their Immediate Results.'

The author gave a summary account of the results obtained on two expeditions undertaken by him for the American Museum of Natural History in 1902 and 1903, for the study of the volcanic eruptions of the Soufrière which began in May, 1902. Particular attention was devoted to the heavy coating of

volcanic ash deposited upon the northern portion of the island of St. Vincent and the ash-filling of the gorges of the Wallibou and Rabaka Dry Rivers, the devastation wrought in the forests and on the plantations within a radius of about five miles from the crater and the phenomena of primary eruptions observed in the crater and of secondary eruptions observed in the Wallibou and Rabaka ash-beds. The nature of the exploding eruption cloud was discussed and it was shown how the heavily dust-laden steam cloud kept close to the surface of the ground under the influence of gravity while its initial velocity was furnished by the horizontal component of the explosion.

About eighty lantern slides were used in illustrating the speaker's remarks.

EDMUND OTIS HOVEY,  
*Secretary.*

THE ELISHA MITCHELL SCIENTIFIC SOCIETY OF  
THE UNIVERSITY OF NORTH CAROLINA.

THE 155th meeting was held in the Chemical Lecture Room, Tuesday, October 11, 7:30 P.M. The following papers were given: 'The Construction of a Double Six,' by Professor Archibald Henderson; 'The Geological History of Currituck Banks,' by Professor Collier Cobb.

ALVIN S. WHEELER,  
*Recording Secretary.*

#### DISCUSSION AND CORRESPONDENCE.

##### SOIL MANAGEMENT.\*

"The three papers here printed have been refused departmental publication by the Chief of the Bureau of Soils."

In glancing at this note on the title page of this pamphlet of 168 pages, the reader is naturally struck with the query, why the U. S. Department of Agriculture should decline to publish the results of the work of such a man as King, working under its auspices. Has the salt indeed lost its savor? Both

\* 'Investigations in Soil Management,' being three of six papers on the influence of soil management upon the water-soluble salts in soils, and the yield crops, by F. H. King, Madison, Wisconsin. Published by the author, with permission of the Secretary of Agriculture.

American and European scientists have been accustomed for many years to regard with confidence and respect the work and publications of the man upon whom, by common consent, the mantle of Wollny has fallen since the premature death of the soil physicist of Germany. It is certainly worth the while of every worker in agricultural science to see and judge for himself whether a star has been eclipsed or blotted out from the scientific firmament, and if so, from what cause.

We are, at the outset, somewhat reassured as to the totality of the conjectured eclipse, by finding that the three rejected bulletins are but a portion of a series of six forming the report of King, as head of the Division of Soil Management, for the years 1902 and 1903. Since three out of the six have been accepted by the department for publication, it is evident that King's right hand has not wholly lost its cunning during these two years. What, then, is the matter with Bulletins D, E and F, here presented to us by the author at his personal expense and risk, and as he expressly states, in their original form?

As it happens, the rest of the series, bulletins B, C and G, have not yet reached publication by the bureau of soils. We must, therefore, rely upon the intrinsic evidence contained in the three now before us, to settle the reason for their rejection.

In his preface the author reticently says that the 'adequate discussion was withheld in order to avoid, as far as possible, antagonizing the published views of the Bureau' (of Soils); and hence the three papers are published without general comments. It is to the conclusions deducible from the facts given, then, that we must look for the substance of these papers, and for the possible cause of their falling under condemnation.

Bulletin E, the first in the pamphlet and the most important of the three, treats of the results obtained in the fertilization with stable manure, in different multiple proportions, of eight different types of soils. The experiments were conducted on eight two-acre plots, located respectively near Goldsboro, N. C., Upper Marlboro, Md., Lancaster, Pa., and Janesville, Wis., and representing two groups