

found at a few points on the present shore line, such as the cusped forelands seen at Cedar and Cove points on the lower Chesapeake; it will be edifying to learn if similar details are revealed by further study of the earlier shore lines. All these details concerning the shore line features might, it may be noted, have been stated to advantage in a technical terminology, as expressive of the precise quality of the facts as is the technical terminology that is employed without hesitation in the chapters on paleontology; but in the present volume the best technical terminology for the descriptions of shore lines—that suggested by Gulliver—is unfortunately seldom employed.

There is one reflection that Shattuck's close study of a coastal plain suggests to one who is particularly interested in that class of forms as objects of physiographic study; namely, the difficulty of telling the whole truth in a brief statement. It is customary with some physiographers to describe the coastal plain of the Maryland region as having been formerly maturely dissected and recently partly submerged; an effective general picture of its present form and outline is thus suggested in a few words. But the details of its form require a more elaborate statement for their proper presentation. It is a coastal plain which, having been uplifted and effectually baseleveled, was renovated with a wide-spread cover of Lafayette sediments, and then uplifted again, as good as new: in this condition it was dissected to well advanced maturity; then strongly submerged preparatory to an oscillating emergence, which allowed the rapid carving of four scarps and the deposition of four terraces (the last being those of to-day) on its maturely dissected slopes. The first brief statement will serve for use in schools; the second more elaborate account, with appropriate local details, may suffice for use in colleges. The features yet to be more fully investigated offer fitting subjects for field research by graduate students and professional workers.

W. M. DAVIS

SOCIETIES AND ACADEMIES

THE TEXAS ACADEMY OF SCIENCE

THE first meeting of the Texas Academy of Science for the year 1906-'07 was held in the chemical lecture room of the University of Texas on Friday evening, October 26, 1906. The program consisted of the inaugural address of the president, Dr. S. E. Mezes, professor of philosophy in the university and dean of the college of arts, who took for his subject 'What is Matter?'

At the regular meeting, November 24, 1906, Dr. George S. Fraps, of the Agricultural and Mechanical College of Texas, state chemist, discussed 'Food Adulteration' after which the speaker was entertained by the officers of the academy at an informal banquet.

The semi-annual formal meeting was held Tuesday evening, December 26, 1906. Dr. H. Y. Benedict, professor of applied mathematics and astronomy, in the University of Texas, delivered an illustrated lecture on 'The Solar System.'

At the regular meeting of January 26, 1907, Captain T. J. Dickson, chaplain of the 26th Infantry, U. S. A., Fort Sam Houston, San Antonio, by request, presented two illustrated papers: (1) 'Fighting Asiatic Cholera,' (2) 'The First Ascent of Mount Isarog'; both papers dealing with his personal experiences in the Philippine Islands.

The meeting for February-March was held March 7, 1907. Dr. Eugene P. Schoch, adjunct professor of chemistry, University of Texas, gave an experimental exhibition of 'The Transformation of Radium.'

Volume VIII. of the *Transactions of the Academy* has been recently published. Its contents include papers on the following subjects:

'The Æsthetic Element in Scientific Thought,' by Dr. Thomas Montgomery, Jr. This is the presidential address for 1905.

'Paving Brick,' by Thomas U. Taylor, dean of the department of engineering in the University of Texas.

'The Spacial Conception of the Blind,' by Dr. Franz J. Dohmen, honorary lecturer in mathematics in the University of Texas.

'Urogenital Organs of North American Lizards,' by Barney Brooks, professor of chemistry in Coronal Institute.

'The Indebtedness of the German Language to the Latin,' by Dr. Sylvester Primer, professor of Germanic languages in the University of Texas.

The volume concludes with the proceedings of the academy for 1905.

FREDERIC W. SIMONDS,
Secretary

UNIVERSITY OF TEXAS,
April 2, 1907

THE CHEMICAL SOCIETY OF WASHINGTON

THE 173d regular meeting of the Washington Section of the American Chemical Society was held at the Cosmos Club, March 14, 1907.

The question of a sanitary committee was settled by authorizing the president to instruct the committee on communications (O. Schreiner, chairman) "to make arrangements for special meetings of the society, or joint meetings with other organizations where lectures and reports may be presented on general or special phases of sanitation, in order that the society may be kept informed on such matters, and suitable action taken."

W. L. Dubois read a paper on 'Lactose and Butter Fat in Milk Chocolate' in which he showed that lactose could be accurately estimated by polarizing the solution of sugar at 86° after inversion, and butter-fat could be approximately determined by the Reichert-Meissl number of the extracted fat. Dr. A. Seidell presented a paper on the 'Determination of Acetanilid in Headache Powders.' The method suggested was based upon the reaction of bromine with anilin to form anilin tribromide. The sample containing acetanilid is dissolved in dilute hydrochloric acid and the solution boiled. Anilin hydrochloride thus formed is titrated directly with a standard solution of potassium bromate. The free bromine colors the solution yellow at the end of the reaction. W. T. Schaller presented a paper on 'The Chemical Composition of Molybdic Ocher' in which it was shown that the natural molybdic ocher is a hydrous ferric

molybdate $\text{Fe}_2\text{O}_3 \cdot 3\text{MoO}_3 \cdot 7\frac{1}{2}\text{H}_2\text{O}$, and that the existence of molybdenum trioxide MoO_3 has not been demonstrated.

On April 1, Professor A. Frank, Jr., of Germany, gave an address before the society at the lecture hall of the George Washington University on 'The Utilization of Atmospheric Nitrogen in the Production of Calcium Cyanamid.' The speaker described the gradual steps which had been taken by various investigators during the past century to bring about the fixation of atmospheric nitrogen, and told of the successful accomplishment of this problem by his father working in collaboration with Dr. Caro. The successful issue of this task was made possible only after Professor Moissan had shown the practicability of manufacturing calcium carbide commercially, and after the introduction of the dynamo and electric oven by Siemens and Halske. The process consists essentially in passing a current of air freed from oxygen through calcium carbide heated in an electric oven, calcium cyanamid or lime-nitrogen being thus produced. The speaker also touched upon the fertilizing experiments carried on in Europe to show the value of cyanamid as a fertilizer. Other products are also produced, some being used in the manufacture of gun powder. Specimens of the various products were exhibited.

J. A. LE CLERC,
Secretary

BUREAU OF CHEMISTRY,
WASHINGTON, D. C.

DISCUSSION AND CORRESPONDENCE

THE FIRST SPECIES RULE AS IT AFFECTS GENERA OF NORTH AMERICAN BIRDS

IN my consideration of the application of the 'first species rule' in fixing the types of the genera of North American birds¹ I stated that fourteen changes in the genera of the A.O.U. Check List would result, while the types of several genera would be shifted to congeneric species. Dr. J. A. Allen has stated² that my statistics 'greatly underestimate the number of changes' and re-

¹ SCIENCE, XXIV., p. 262, November 2, 1906.

² SCIENCE, XXIV., p. 778, December 14, 1906.