

in the possession of Dr. B. S. Hedrick, formerly Examiner in the U. S. Patent Office. The specimen was in the form of a cartridge, consisting of long staple gun cotton, and although the paper was torn somewhat it was still possible to read that it was labeled 'cotton for shooting,' and that it was made by 'Lennig, of Philadelphia, under patent of October 6, 1846.'

The gun cotton is in a complete state of preservation and, as it apparently dates from shortly after Schoenbein's patent was filed, it is probably the oldest specimen in this country and shows that properly made gun cotton is a stable product. Prof. Munroe then offered in the same connection a copy of Schoenbein's original United States patent, and discussed his claim to being the original discoverer of gun cotton, holding that although he had much improved the process of manufacture, and made it practicable, that Braconot Pelouze and Dumas, had all preceded him in producing an explosive, cellulose nitrate. There was some discussion, especially as to a discrepancy between the dates of the patent and that on the specimen presented by Prof. Munroe.

Dr. W. J. Hedrick referred to the connection of his father with the Patent Office, and said that formerly the laboratory of the Agricultural Department, which was then under the Interior Department, was connected with the Patent Office, and that the specimen might have come from this laboratory. Dr. Littlewood said that he had tried to obtain further data, but had found no explosives in the office as old as this specimen. He further stated that few would be handed down by him to his successor, as his policy was to remove all explosives as soon as possible. Mr. Dewey said that he would not put much faith in the date on the specimen. Lennig may have made a mistake in the date. He was sceptical as to its age. Prof. Munroe said that if it dated back only to 1860 it was old. After further discussion by Dr. Fireman and Prof. Munroe, Mr. W. D. Bigelow gave a description of a 'Convenient Apparatus for the Estimation of Urea in Urine by the Hypobromite Method.' The apparatus consisted of a burette so bent that the graduated part forms the arc of a circle, the center of which is a lip at the end farthest from the stop cock. Above

the stop cock is a thistle-tube top for the introduction of the reagents.

A. C. PEALE,

Secretary.

TEXAS ACADEMY OF SCIENCE.

THE mid-year meeting of the Texas Academy of Science was held in San Antonio, December 31, 1896.

At the afternoon session the following papers were read: 'Notes on the Physiology of the Central Nervous System of some of the Lower Animals,' by W. W. Norman, professor of biology in the University of Texas. 'The Evolution of Culture,' by Thomas Fitzhugh, professor of Latin, University of Texas. 'Vertical Curves for Railways,' by J. C. Nagle, professor of engineering, Agricultural and Mechanical College of Texas. 'Notes on Indian Corn and some of its Uses Among Modern and Ancient Mexicans,' by Dr. David Cerna, Medical Department of the University of Texas.

The chief event of the evening session was the address of Maj. C. E. Dutton, U. S. A., on 'The Economics of Concentrated Capital.' Dr. George Bruce Halsted, President of the Academy, also spoke briefly on 'The Greatest Foundling House of the World, a Personal Study in Russian Sociology.'

Dr. Cerna had the pleasure of presenting to the Academy, Mrs. Frances Long Taylor, a daughter of Dr. Crawford W. Long, of Georgia, the well known discoverer of the anæsthetic properties of ether.

At the close of the meeting the members of the Academy were entertained by Major Dutton at his residence.

FREDERIC W. SIMONDS.

NEW BOOKS.

Catalogue des bibliographies géologiques. EMM. DE MARJORIE. Paris, Gauthier-Villars et fils. 1896. Pp. xx+733.

Life and Letters of William Barton Rogers. Edited by his wife, with the assistance of Wm. T. SEDGWICK. Boston and New York, Houghton, Mifflin & Co. 1896. Vol. I., viii+427; Vol. II., vi+451. \$4.00.

Problems of Biology. GEORGE SANDEMAN. London, Swann, Sonnenschein & Co.; New York, The Macmillan Co. Pp. 213. \$2.00.