

This style of charge was then tested with a quantity of ores containing sulphur combined with iron, copper, zinc and lead. The charge for the final assay was ore 1/2 assay ton, litharge 70 grams, soda 15 grams. Niter as calculated for a 20-gram button (from the results of the preliminary assay). The buttons were soft, malleable and weighed from 17-23 grams, while the results in gold and silver were slightly higher than the old methods and the loss in the slag slightly less.

*The Influence of Diet, Muscular Exertion and Loss of Sleep upon the Formation of Uric Acid:* H. C. SHERMAN.

Observations made in connection with metabolism experiments upon three professional athletes and one subject of sedentary habits showed the quantity of uric acid eliminated to be primarily dependent upon the quantity of meat products in the diet, and to be influenced very little, if any, by the abundance of a bread and milk diet, by a considerable loss of sleep, or (in the case of the professional athletes) by long-continued muscular exertion. With the subject of sedentary habits, a much smaller amount of exercise increased slightly the uric acid elimination. This paper will appear in the November issue of the *Journal of the American Chemical Society*.

H. C. SHERMAN,  
Secretary.

ELISHA MITCHELL SCIENTIFIC SOCIETY.

At the 150th meeting of the Elisha Mitchell Scientific Society, held in the Chemical Lecture Room of Person Hall, University of North Carolina, October 13, the following papers were presented:

*The Use of the Vector Diagram in Electrical Engineering:* Mr. J. E. Latta.

*Tanning (with specimens):* Professor CHARLES BASKERVILLE.

After outlining modern methods of tanning, especially by the use of chromium nitrite, a number of rare skins which had been done for Messrs. Tiffany & Co., of New York, were exhibited. The skins were presented to the Museum of the Chemical Laboratory.

*The Influence of the Spermatozoon on the Larval Development of the Sea-Urchin:* Professor H. V. WILSON.

*A New Indicator:* Professors E. V. HOWELL and A. S. WHEELER.

A new indicator extracted from the hulls of the muscadine or wild Bullace grape was announced. This coloring matter gives a red color with acids and green with alkalies, being purple in neutral solutions. The only solvents so far found which may be used for its extraction are alcohol and water. It responds to inorganic and organic acids and volatile and non-volatile alkalies. Carbon dioxide does not affect it.

On adjournment of the public session, the annual meeting was held for the election of officers and transaction of business. The proposed agreement with the North Carolina Academy of Science was approved. By this agreement the *Journal of the Mitchell Society* becomes the official organ of the North Carolina Academy of Science, its size being doubled and issued quarterly. The following officers were elected for the ensuing year:

*President*—Professor Charles Baskerville.

*Vice-President*—Mr. J. E. Latta.

*Recording Secretary*—Professor A. S. Wheeler.

President Venable retains the permanent secretaryship. CHARLES BASKERVILLE,  
Secretary.

DISCUSSION AND CORRESPONDENCE.

A HITHERTO UNDESCRIBED VISUAL PHENOMENON.

TO THE EDITOR OF SCIENCE: The phenomenon of apparent movement described by Dr. Gould (SCIENCE, XVIII., 536) was discussed in 1896 by Professor S. Exner in an article entitled 'Ueber autokinetische Empfindungen' (*Zeits. f. Psych. u. Physiol. d. Sinnesorgane*, XII., 313). According to Exner, the first observation on record was made by Alexander von Humboldt in 1799. Several authors (among them men as well known as Aubert and Charpentier) have occupied themselves with the phenomenon; and it forms the subject of an experiment in Sanford's *Laboratory Course*, 1898, 309.

E. B. TITCHENER.