

nist and a pioneer in the study of the application of chemistry to the arts and to sanitation. He also made contributions to geology, mineralogy, and ichthyology, assisted in the preparation of the United States Pharmacopœia, and founded *The Medical Repository* which became a journal of general science and contains many of the earliest American contributions to chemistry. In addition to his scientific and educational work, Mitchill served as a member of the New York legislature and represented that state in the United States House of Representatives and Senate.

J. S. H.

Rapid Electrolysis without Rotating Electrodes.—GRAHAM EDGAR and B. PURDUM, of the University of Virginia (*Jour. Am. Chem. Soc.*, 1922, xliv, 1267-1270), have devised a method for the rapid determination of metals by electrolysis with stationary electrodes. By use of a simple glass apparatus, the solution is stirred indirectly by a current of air during the electrolysis. A 110-volt lighting circuit, reduced by resistance lamps, was used as a source of current. As much as 4 decigrams of metallic copper were deposited quantitatively in 20 minutes. The method was used for the quantitative determination of silver, lead, copper, cadmium, iron, zinc, cobalt, and nickel.

J. S. H.

Colorimetric Determination of Hydrogen Peroxide.—M. L. ISAACS, of the University of Cincinnati (*Jour. Am. Chem. Soc.*, 1922, xliv, 1662-1663), describes the following reaction of hydrogen peroxide. Thirty c.c. of water, 10 c.c. of 5 per cent. solution of citric acid, and 1 c.c. of dilute solution of hydrogen peroxide are mixed; and 1 c.c. of 10 per cent. solution of ammonium molybdate is slowly added. A yellow color develops. This reaction may be used for the colorimetric determination of hydrogen peroxide. The yellow solution is diluted to a volume of 50 c.c., and is compared in a Duboscq colorimeter with a standard solution of potassium chromate. This solution contains 0.4 gram of potassium chromate per litre, and is standardized against the color yielded by hydrogen peroxide of known concentration.

J. S. H.

Functions of Aluminium in Living Matter.—JULIUS STOKLASA (*Umschau*, 1922, xxvi, 134-135) has studied the functions of aluminium in living matter. Thus aluminium protects plants from the injurious action of an excess of iron. By virtue of this property, aluminium promoted the growth of plant life during the carboniferous period, and thus made possible the coal deposits. In conjunction with iron and manganese, aluminium plays a part in the formation of the pigments in the blossoms of plants. The blue, violet, red, and blue-green pigments in birds and beetles owe their origin in part to the action of aluminium. This element is also present in the blood.

J. S. H.