in 1896, and more particularly the lecture he delivered at Kimberley in 1905—for which the British Association for the Advancement of Science awarded him \pounds 600 for excess expenses, all of which sum he employed in furthering his experiments,—were so popular that tickets of admission sold freely for \pounds 5 apiece.

In the last letter I received from him, dated October 19, 1918, the depth of his love for his wife was tenderly and strikingly expressed. He wrote, "Evidently you have not heard of the terrible calamity that fell upon me in 1916, when I lost my dear companion, Lady Crookes, which has eclipsed anything that has happened, or that can happen in the future." They had just celebrated the Diamond Wedding, the sixtieth anniversary of their marriage.

NOTES AND NEWS

Dr. Victor Ziegler has resigned from the position of professor of geology and mineralogy in the Colorado School of Mines.

Dr. Joseph E. Pogue has been appointed curator in the Division of Mineral Technology, U. S. National Museum, and will carry on investigations in industrial economics, with special reference to the mineral industries.

Alexis A. Julien, a member of the geological department of Columbia University, New York City, and author of a number of contributions to mineralogy, especially the genesis of minerals, died on May 7 at the age of 79 years.

The death is also announced of George F. Becker, the geophysicist, on April 20, 1919, in his seventy-third year.

From German journals recently received we learn of the death on September 22, 1918, at the age of 68, of Dr. Friedrich Berwerth, director of the mineralogic-petrographic division of the Museum of Natural History in Vienna, known to mineralogists especially for his work on meteorites.

Rudolf Fuess, proprietor of the firm of crystallographic instrument makers in Steglitz, Berlin, died on November 21, 1917, at the age of 79 years.

Robert Marc, author of many articles on mineralogic subjects, especially on the application of physical-chemical methods to mineralogic problems, was killed in action on May 1, 1918. An account of his life appears in *Centr. Min. Geol.*, **1918**, 229–231.

The following new books on mineralogical subjects have appeared during the past year or two, but have not been heretofore noted in our columns:

BAYLEY, W. S. Descriptive Mineralogy. 542 pp. Appleton, 1917.

BURDICK, A. J. Chemical Tests for Minerals. 93 pp. Gateway Publishing Co., Beaumont, Calif., 1917.

EDWARDS, M. E. Introduction to Optical Mineralogy and Petrography. 197 pp. Gardner Printing Co., Cleveland, Ohio.

GEORGE, R. D. Common Minerals. 463 pp. Colo. Geol. Survey, 1917.

PROCEEDINGS OF SOCIETIES

THE NEW YORK MINERALOGICAL CLUB

The Thirty-fourth Annual Meeting of the New York Mineralogical Club was held on April 16, at the American Museum of Natural History with the President, Dr. Kunz, presiding.

The following officers were elected for the ensuing year: President, George F. Kunz; Vice-President, George E. Ashby; Corresponding Secretary, Wallace G. Levison; Recording Secretary, Herbert P. Whitlock; Treasurer, Gilman S. Stanton.

Dr. Alexander Hamilton Phillips, professor of mineralogy at Princeton University, addressed the club on Isomorphism and Crystal Structure. Professor Phillips gave a short historical sketch of the theory of isomorphism and showed the important part which the theory had played in the development of modern ideas of crystal structure, as well as in other chemical and mineralogical problems.

Specimens of current interest were exhibited by Mr. Wintringham and Mr. Whitlock. The President announced the retirement of Sir Lazarus Fletcher from the directorship of the natural history department of the British Museum, and the deaths of Prof. Carl Hintze, Prof. Max Bauer, and Prof. Fritz Frech. HERBERT P. WHITLOCK, Recording Secretary.

PHILADELPHIA MINERALOGICAL SOCIETY

Wagner Free Institute of Science, May 8, 1919

A stated meeting of The Philadelphia Mineralogical Society was held on the above date with the President, Dr. Leffmann, and later, the Vice-president, Mr. Trudell, in the chair. Sixteen members were present.

Mr. Samuel G. Gordon addressed the society on "The Evolution of the Goniometer." He described the contact goniometers of Carangeot, Burrow, Adelman, Penfield, and Goldschmidt; the single vertical circle goniometers of Wollaston, Studer, Degen, Mitscherlich, Schrauf, Lang, Brezina, Mallard, and Miers; the single horizontal circle goniometers of Babinet, Haidinger, Borsch, Miller, Lang, and Websky; the two-circle goniometers of Miller, Goldschmidt, Fedorov, Czapski, and Stoeber; the three-circle goniometers of Herbert Smith, Klein, and Fedorov; the universal goniometers of Groth, Viola, Klein, and Hutchinson; the suspended goniometer of Miers; and the cutting and grinding goniometer of Tutton. The talk was illustrated with antern slides, and two of the goniometers discussed.

Mr. Biernbaum reported an excursion to Perkiomen and Phoenixville, with Messrs. Frankenfield, Gordon, and Nicols. The Montgomery mine, one of the Wheatley group, is being operated, and anglesite, cerussite, pyromorphite, and calamine were found.