## ALEXANDER ZIWET—IN MEMORIAM

In the death on November 18, 1928, of Alexander Ziwet, Professor Emeritus of Mathematics in the College of Engineering of the University of Michigan, this Society lost one of its most distinguished scholars.

Professor Ziwet was born in Breslau, Germany, February 8, 1853, of a Polish father and a German mother. His father was a landed proprietor, and his early education was at home under private tutors. At the age of twelve he entered the gymnasium at Glogau, German Silesia, and after five years attendance was graduated in 1870. His father having died in the meantime, he joined his mother and sisters who had gone to Warsaw, and there he learned Polish and Russian and entered the University. In 1873 he transferred to the University of Moscow, which he left in 1874 to study engineering in Germany. After some time in an architect's office, he entered the Polytechnic School at Karlsruhe, Baden, and in 1880 was graduated as a civil engineer. He had served meanwhile the required year in the army, and had passed his examination for a commission as a lieutenant in the reserve artillery corps.

In the fall of 1880 he came to Detroit, and, after about two years in the Lake Survey and five years in the computing division of the United States Coast and Geodetic Survey, he was appointed an instructor in mathematics at the University of Michigan. After several promotions in rank, he became professor of mathematics and head of the Department of Mathematics in the College of Engineering. He was also head of the Department of Modern Languages in the College of Engineering for several years. He had a command of seven modern languages. He retired in 1925, becoming Professor Emeritus of Mathematics. The University conferred on him the honorary degree of Doctor of Science in 1927.

Professor Ziwet has been prominently connected with the development of mathematics in the United States. He was a member of the editorial board of this Bulletin from 1892 to 1920, and served as vice-president of the American Mathematical Society during 1903. His numerous book reviews showed not only a broad knowledge of mathematics, but also a keen critical sense. He helped in the establishment of the Chicago section of the Society in 1897, was a member of its first program committee, and gave it his unqualified support from the beginning by regular attendance and discussion. He took a keen interest in the Mathematical Congress at Chicago, and in the first colloquium of the Society at Evanston, in the latter to the extent of writing up for publication by the Society the lectures delivered by Klein at that time. He was vice-president and chairman of Section A of the American Association for the Advancement of Science during 1905. His retiring address on The relation of mechanics to physics was published in Science, January 12th, 1906. He was also a member of the executive council which organized the Mathematical Association of America in 1916.

To his colleagues and to serious students Professor Ziwet gave most

generously of his time and thought. His familiarity with the literature of mathematics was amazing, covering long periods of time and journals in half a dozen languages. He was one of the founders of the University of Michigan Mathematical Club. For many years the club met at his rooms. To its activities, he devoted much time and attention. He was also active in promoting the general scholarly interests of the University, being one of the influential members of the University of Michigan Research Club.

Professor Ziwet left a library of over 5000 volumes which he presented to the University of Michigan. In the collection there were about 400 volumes on the history of mechanics, including many notable works such as a first edition of Newton's *Principia*. The library owes much to him for constant attention over a long period of years. Professor Ziwet's library, together with Professor Beman's, which was also large, and which was presented to the University at the time of Professor Beman's death, are valuable additions to the Mathematical Library of the University.

The following is a list of Professor Ziwet's publications.

An Elementary Treatise on Theoretical Mechanics, Macmillan, 1894, 591 pp.

Elements of Theoretical Mechanics, Macmillan, 1904, 494 pp.

Introduction to Analytical Mechanics (with P. Field), Macmillan, 1912, 378 pp.

Analytic Geometry and Principles of Algebra (with L. A. Hopkins), Macmillan, 1913, 369 pp.

Analytic Geometry (with L. A. Hopkins), Macmillan, 1916, 280 pp.

Note on the composition of finite rotations about parallel axes, this Bulletin, vol. 14 (1908), pp. 208-212.

A note on plane kinematics (with P. Field), American Mathematical Monthly, vol. 21 (1914), pp. 105-113.

The accelerations of the points of a rigid body (with P. Field), American Mathematical Monthly, vol. 23 (1916), pp. 371-381.

His translations are as follows.

Somoff, Theoretische Mechanik (translated from Russian into German). Volume I, Kinematics, Teubner, 1879; Volume II, Statics, 1879.

- P. Duhem, Émile Mathieu, His Life and Works, this Bulletin, (1), vol. 1 (1891), pp. 156-168.
- F. Klein, Riemann and his significance for the development of modern mathematics, this Bulletin, (2), vol. 1 (1894), pp. 165-180.
- V. Schlegel, On the problem of the minimum sum of the distances of a point from given points, this Bulletin, (2), vol. 1 (1894), pp. 33-52.
- F. Klein, Evanston Colloquium Lectures, 1894. Published by American Mathematical Society. Reported by A. Ziwet.

He also published numerous book reviews in this Bulletin.

THE UNIVERSITY OF MICHIGAN

L. C. Karpinski J. W. Bradshaw T. H. Hildebrandi Peter Field