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(b. Boston, Massachusetts, 28 August 1867; d. Cambridge, Massachusetts, 12 September 1918)

mathematics.

Maxime Bôcher was the son of Ferdinand Bôcher the first professor of modern languages at the [Massachusetts Institute of Technology](#), and Caroline Little, of Boston. He entered Harvard in 1883, specializing in mathematics and natural science under W.E. Byerly, B.O. Pierce, and J. M. He was elected to phi Beta Kappa upon his graduation in 1888. Bôcher then went to Göttingen as a traveling fellow to audit the lectures of [Felix Klein](#), Schönflies, Schur, Schwarz, and Voigt. Encouraged by Klein, he wrote a tract that won the prize in a competition sponsored by the philosophical Faculty at Göttingen in 1891. It also served as his doctoral dissertation (1891), and was published as a book (1894) with an introduction by Klein.

In 1891 Bôcher returned to Harvard as an instructor in mathematics, and rose through the ranks to a professorship in 1904. In 1913 he was an exchange professor at the Sorbonne for a three-month period beginning in November.

He served the mathematical community unstintingly as a member of the editorial staff of the *Annals of Mathematics* in 1896–1900, 1901–1907, and 1911–1914; as vice-president, in 1902 and as president, in 1909 and 1910, of the American Mathematical Society; and as editor of the Society's *Transactions* in 1908, 1909, and 1911–1913. Under Klein's leadership as president of the international Commission on the Teaching of Mathematics, Bôcher served as chairman of the American Committee on Graduate Work in Universities, which published the report "Graduate Work in Mathematics in Universities and in Other Institutions of Like Grade in the [United States](#)" in the *Bulletin of the U.S. Bureau of Education* no. 6 (1911). He was an invited speaker at the St. Louis Congress of Mathematicians in 1904 and at the Fifth International Congress of Mathematicians, Cambridge, England, in 1912, where his paper dealt with boundary problems in one dimension.

Bôcher was a prolific contributor to mathematical journals on the theory of differential equations and related questions. His research topics included systems of linear differential equations of the first order, singular points of functions satisfying partial differential equations of the elliptic type, exposition of the work of Jacques Strum on algebraic and differential equations, boundary problems, and [George Green](#)'s functions for linear differential and difference equations, and the theorems of oscillation of Strum and Klein.

He was a member of the [National Academy of Sciences](#) and the American philosophical Society, and was a fellow of the [American Academy of Arts and Sciences](#).

BIBLIOGRAPHY

I. Original Works. Bôcher' books are *Über die Reihentwicklungen der potentialtheorie* (Leipzig, 1894), his doctoral thesis; *Introduction to Higher Algebra* ([New York](#), 1907); *An Introduction to the Study of integral Equations* Cambridge Tracts in mathematics and Mathematical physics, no. 10 (Cambridge, 1909); *plane Analytic Geometry with Introductory Chapters on the Differential Calculus* ([New York](#), 1915); *Trigonometry With the Theory and Use of Logarithms* (New York, 1915), written with H. D. Gaylord; *Leçons sur les méthodes de Strum dans la théorie des équations différentielles linéaires et leurs développements modernes*, delivered at the Sorbonne in 1913–1914, G. Julia, ed. (Paris, 1916), in the Borel series.

His numerous papers are listed in poggendorff, V, 129. A more complete list is found in G. D. Birkhoff, "The Scientific work of Maxime Bôcher," in *Bulletin of the American Mathematical Society*, **25** no. 5 (1919), 197–216.

II. Secondary Literature. Further biographical detail may be found in W.F. Osgood, "The Life and Services of maxime Bôcher," in *Bulletin of the American Mathematical Society* **25** no. 8 (1919), 337–350; in "Maxime Bôcher." in *Science*, n.s. **48**, no. 1248 (29 Nov. 1918). 534–535, repr. by the [National Academy of Sciences](#) in its *Annual Report* for 1918, pp. 49–50, and also by The [Harvard University Gazette](#) (22 Oct. 1918), p. 14; in the *Lebenslauf* in his doctoral thesis (gift copy presented by Bôcher to Widener Library, [Harvard University](#), 19 Sept. 1891); in *Who's Who in Science* (1912), p. 53; in *American Men of science* (1910), p. 47; and in the "Reports of Meetings," in *Bulletin of the American Mathematical Society*, **17** (1910–1911), 77, 277, 507.

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