

FITCH, Annie (MacKinnon). June 1, 1868–September 12, 1940.

UNIVERSITY OF KANSAS (BS 1889, MS 1891), CORNELL UNIVERSITY (PhD 1894).

Annie Louise MacKinnon was born in Woodstock, Ontario, Canada, the daughter of Annie Louise (Gilbert) (1834–ca. 1919), and Malcolm MacKinnon (1838–ca. 1903), natives of Ontario. The family was living in Kansas by 1870, and according to census records from 1870 and 1880, there were at least five children. They were Gilbert J., age five in 1870 but not listed in the 1880 census; Annie; Malcolm, an infant in 1870 and ten in 1880; Frederick B., age eight in 1880; and D. Stanley, age one in 1880. In 1870 her father was a real estate agent, and in 1880 he was a hardware merchant. She lived in Concordia, Kansas, during her childhood and graduated from Concordia High School.

MacKinnon then enrolled at the University of Kansas in Lawrence and was one of the first two women in our study to graduate from a public university. The University of Kansas opened in 1866 with about fifty students, roughly half men and half women, although the first degree was not awarded until 1873. It appears that after her graduation in 1889, MacKinnon began her graduate work in mathematics at Kansas. According to Price's history of the Kansas mathematics department, she was the third graduate student in mathematics in the university's history. MacKinnon also taught in the high school in Lawrence 1890–92 and received her master's degree in 1891. In 1891–92, she continued her studies at the University of Kansas with Henry Byron Newson, a research mathematician who had been appointed to the faculty a year earlier.

MacKinnon enrolled at Cornell University in October 1892 and was Erastus Brooks fellow her last year there, 1893–94. It was noted that she had previously completed non-resident graduate work in modern geometry. She received her PhD from Cornell in 1894 with major subject theory of functions, first minor quantities and statics, and second minor mathematical physics.

Annie MacKinnon spent the next two years studying mathematics at Göttingen, as Association of Collegiate Alumnae European fellow in 1894–95 and as Women's Education Association of Boston European fellow in 1895–96. Also at Göttingen during this period were [Mary Frances Winston](#), later to marry Henry Byron Newson; John H. Tanner, an assistant professor of mathematics from Cornell; and Edward Fitch, an assistant professor of Greek at Hamilton College whom MacKinnon later married.

After returning from Göttingen in 1896, MacKinnon was appointed the professor of mathematics at Wells College, a small college for women in Aurora, New York, that awarded its first degree in 1869. In addition to being the only mathematics instructor, teaching courses through differential equations, she was registrar in 1900–01. She remained at Wells until 1901, when on July 3, in Lakeside, Ohio, she married Edward Fitch (1864–1946). MacKinnon's replacement at Wells was [Anna Lavinia Van Benschoten](#), who would subsequently earn her doctorate from Cornell.

Edward Fitch was born in Alton, New York, and received his BA in 1886 and his MA in 1889 in Greek from Hamilton College, a school for men in Clinton, New York. He went to Göttingen in 1893 and studied under the eminent classical philologist Ulrich von Wilamowitz-Moellendorff. Fitch received his PhD in 1896, Wilamowitz's only American doctoral student. Like MacKinnon, Fitch returned that year from Göttingen to New York State. He resumed his position teaching Greek at Hamilton

College, which was nearly a hundred miles from Wells College. Edward Fitch spent the rest of his career at Hamilton, where he was promoted to associate professor in 1899 and was named Edward North Professor of Greek in 1904. He was dean 1926–32 and spent the following year as a professor at the American School of Classical Studies at Athens. He retired in 1934 as professor and dean emeritus. They had no children.

Annie Fitch was a member of the League of Women Voters and was on the book committee of a nearby town library. In the late 1920s, she reported to the AAUW that “after [her] marriage [she] continued upon mathematical investigations started some years before” (Maltby, 16). She was a charter member of the MAA and maintained that membership until her death at age seventy-two. She died at her home in Clinton, New York, after a long illness, having written to [Helen Owens](#) in May 1940, a few months before her death: “It seems to me worthwhile that some women are intelligent about things mathematical even if their own accomplishments are not great” (Owens Papers).

Organizational affiliations: AMS, MAA (charter member), AAAS, Phi Beta Kappa, Sigma Xi.

Dissertation:

1894 [MacKinnon, A. L.] Concomitant binary forms in terms of the roots. PhD dissertation, Cornell University, directed by James Edward Oliver. Printed version, reprinted from *Ann. of Math.* 9 (1895): 95–157 and 12 (1898): 95–109.

Publications:

1894 [MacKinnon, A. L.] *Women in Göttingen University*. Assoc. Coll. Alumnae Publ. Ser. II 26.

1895 [MacKinnon, A. L.] Concomitant binary forms in terms of the roots. *Ann. of Math.* 9:95–157. Published version PhD dissertation. Reviews: *JFM* 26.0141.02 (F. Meyer); *Rev. semestr. publ. math.* 4, pt. 2: 10 (D. J. Korteweg). Reprint with 1898 supplement: [Washington, DC?]: [1898?].

1898 [MacKinnon, A. L.] Concomitant binary forms in terms of the roots. *Ann. of Math.* 12:95–109. Supplement to 1895 article, with tables. Reviews: *JFM* 29.0089.02 (F. Meyer); *Rev. semestr. publ. math.* 7, pt. 1: 15 (W. A. Wythoff).

References to: [BioWMath](#).

“Mrs. Edward Fitch.” (Obituary) *New York Times*, 13 Sept 1940.

“Mrs. Edward Fitch of College Hill Expires.” *Clinton Courier*, 19 Sept 1940.

“Annie MacKinnon Fitch.” *Hamilton Alumni Review* 6, no. 1 (Oct 1940): 50.

Other sources: Owens questionnaire 1937; Owens Papers; Williams Papers; Rare and Manuscript Collections, Cornell University Library; Universitätsarchiv Göttingen, Niedersächsische Staats- und Universitätsbibliothek; Maltby, *History of the Fellowships*; Price, *History of the Department of Mathematics of the University of Kansas*; Whitman, “Women in the American Mathematical Society before 1900” part 2; Tobies, “Zum Beginn des mathematischen Frauenstudiums in Preussen”; Singer, *Adventures Abroad: North American Women at German-Speaking Universities*; William N. Calder III, “The correspondence of Ulrich von Wilamowitz-Moellendorff with Edward Fitch,” *Harvard Studies in Classical Philology* 83 (1979): 369–96; US Census 1870, 1880, 1910 KS, 1900, 1920 NY, 1930 IL.