

**OWENS, Helen (Brewster).** April 2, 1881–June 6, 1968.

UNIVERSITY OF KANSAS (BA 1900, MA 1901), CORNELL UNIVERSITY (PhD 1910).

Helen Barten Brewster was born in Pleasanton, Linn County, Kansas, the only child of Clara (Linton) (1850–1933), originally of Ohio, and Robert Edward Brewster (b. ca. 1840), a native of New York. In 1880 her parents were living in Linn County, where her father, a Civil War veteran, was a farmer. Her parents had married in about 1880, and it appears her father died in 1892.

Helen Brewster did her college preparation in three years at the Pleasanton High School and entered the University of Kansas in Lawrence in September 1897, when she was sixteen. In the 1900 census she was enumerated with her widowed mother, a school teacher, and with her maternal grandmother in Pleasanton. She and her mother were enumerated a second time in 1900 as boarders in Lawrence, where she was a student.

Helen B. Brewster earned her bachelor's degree from Kansas in 1900 and her master's degree in 1901. The following year she was a teaching fellow at Kansas and published an article, possibly her master's thesis, in which she expressed her gratitude to Henry B. Newson, the husband of [Mary Winston Newson](#). In a letter of January 31, 1936, she wrote to "Mrs. Newson" that "through all these years you and your husband have been vital influences in our lives" (transcription in authors' possession). Brewster continued her graduate studies at the University of Kansas until June 1903 and taught high school in Lawrence from 1902 until 1904.

On June 22, 1904, in Pleasanton, Kansas, Helen Brewster married Frederick William Owens, who had also studied mathematics with H. B. Newson at the University of Kansas. F. W. Owens was born in Rockwell City, Iowa, on November 18, 1880. He received a bachelor's degree and a master's degree from Kansas in 1902 and remained as a teaching fellow 1902–03. During 1903–05 he was a resident graduate student in mathematics and astronomy at the University of Chicago. Helen B. Owens studied at the University of Chicago in the summer and autumn quarters of 1904. Their first daughter, Helen Brewster, was born in May 1905 in Illinois. F. W. Owens taught at the academy of Northwestern University in Evanston, Illinois, 1905–07, and Helen Owens returned to high school teaching in 1906 and taught through 1907 in Evanston. In 1907 F. W. Owens received his PhD from the University of Chicago and took a position as instructor of mathematics at Cornell University in Ithaca, New York. Their second daughter, Clara Brewster, was born in February 1908. Helen Owens enrolled as a graduate student at Cornell the following academic year and received her PhD in 1910 with a dissertation written under the direction of Virgil Snyder. She presented minors in physics with Ernest Merritt and mathematical physics with James McMahon.

Helen Owens worked as a private teacher of mathematics in Ithaca for several years starting in 1908 and taught at Wells College, a women's college in Aurora, about thirty miles from Ithaca, on two occasions. She was an instructor at Wells second semester 1914–15 and an acting assistant professor second semester 1916–17. In the first term of 1916–17 she successfully completed a Cornell graduate course, Clothing 16, a sewing course that would have been offered by the home economics department of the Cornell College of Agriculture.

From 1911 to 1917 Owens also campaigned for women's suffrage in Kansas and in New York State. Owens was a state organizer for the Kansas Equal Suffrage

Association during the successful campaign of 1911–12. A newspaper article based on an interview with Owens in 1960 reported that “her first interest in women’s suffrage started, when, as a small child, she accompanied her mother, [who was] president of the Linn County Women’s Suffrage Assn. in Kansas, to the County Fair” (“Women Voters to Mark 40th”). She also said that at the fair she helped distribute copies of a photograph of the temperance leader, Frances Willard, that had been taken with “her ‘political peers,’ the disenfranchised men, including maniacs, condemned criminals, idiots and such.” In 1911 her mother was invited to Kansas to lecture on women’s suffrage; Helen Owens went instead. In a 1943 article on the Kansas suffrage campaign, it was reported that “Dr. Helen Brewster Owens, a Kansas girl living in New York, offered to pay her way to Kansas and give eight weeks of her time to the work, providing her expenses in the state were paid. She came in November and proved a most efficient organizer. The next year she returned and was paid by the national association” (“The woman suffrage campaign of 1912,” 304). The article credits the help of out-of-state workers for the successful campaign. In particular, Owens “remained as a field organizer until the last of July [1912] when overcome by heat, she went home for a month’s rest. Returning the following September, she worked unceasingly until the election” (p. 312). After her experience in Kansas, Owens continued her work for women’s suffrage in New York State as a district chairman of the Empire State Campaign Committee 1913–15 while Carrie Chapman Catt was president of the state organization. Although the 1915 referendum was unsuccessful, Owens remained active in the state campaign until women in New York won the right to vote in 1917.

She wrote for her entry in J. W. Leonard’s 1914 *Woman’s Who’s Who of America* that she was “interested in various organizations for civic improvement and high ideals” (p. 615). She included her presidencies of the Political Study Club of Ithaca and the Tompkins County Equal Suffrage Association, as well as memberships in the Woman’s Christian Temperance Union, the Civic Improvement League, and the Cornell Consumers’ League.

Helen Owens was an instructor at Cornell University 1917–1922, where she taught such courses as advanced algebra, advanced analytic geometry, calculus, differential equations, and projective geometry. Owens also sometimes served as the faculty advisor to the Cornell mathematics club that was organized in November 1919. During the years 1908 to 1926 she was intermittently employed as a secondary school teacher and as a private tutor, and in 1922 she was the first national treasurer of Sigma Delta Epsilon (now Sigma Delta Epsilon-Graduate Women in Science), a fraternal order for graduate women in science founded at Cornell in 1921.

In 1926 F. W. Owens assumed the headship of the mathematics department at Pennsylvania State College (now Pennsylvania State University) in State College. After their move to Pennsylvania, Helen Owens returned to Ithaca for private tutoring for three months each academic year until 1928.

In the letter of January 31, 1936, to Mary Winston Newson, Helen Owens recounts a number of events in her life and describes some aspects of her current situation. She noted that both of her daughters graduated from Cornell, but then recounted “crushing blows.” First, her elder daughter, Helen, had died in 1928. “I still find myself unreconciled and incapable of talking about it.” Newspaper accounts at the time indicate that, according to friends, Helen, a medical student at the University of Chicago, drank poison, partly out of despair over her desire

to marry, which was in conflict with her parents' wishes that she wait until she finished medical school, and partly because of her lack of success in some of her courses. The younger daughter, Clara, married a medical school classmate in June 1930, and both received their MD degrees from Cornell University Medical College and became parents of a son in June 1931. Owens continued her description of the "crushing blows" to include the December 1931 death of Clara's husband as a result of a staphylococci infection caused when he "nipped a tiny pimple on his upper lip in shaving." Clara began her residency in New York the following month while Helen and Frederick Owens cared for her son. After beginning her practice in State College in October 1933, Clara and her young son, continued to live in the Owens household until at least sometime in 1936. Helen Owens also related that her mother, who had lived with them for twenty-six years, had died in the spring of 1933.

Helen Owens then moved on to happier topics in her letter and described her teaching and tutoring before her eldest daughter's death. She also noted in the margin, "I see I did not explain – a state ruling makes it impossible for two members of same family to teach at same school." She wrote that she would regularly get together with the women in the Penn State mathematics department, [Teresa Cohen](#), [Beatrice Hagen](#), and [Aline Huke Frink](#), and read mathematical textbooks; they had read Sierpinski's *Introduction to General Topology* and were then reading Harold Hilton's *Plane Algebraic Curves*.

In 1934 Helen B. and F. W. Owens took a trip that included visits to all forty-eight states as well as Mexico and Canada. In March they stopped in Topeka, Kansas, to attend a meeting of the Kansas Section of the MAA. The report of the meeting noted that they "were passing through Kansas on their way to a six months' rest in California" (*Amer. Math. Monthly* 41:405). Other mathematics meetings they attended that year were an AMS meeting in June in Berkeley, California, the AMS and MAA summer meetings in Williamstown, Massachusetts, an AMS meeting in October in New York City, and the annual December AMS and MAA meetings in Pittsburgh, Pennsylvania. They had been attending the summer meetings every year since 1929, and from 1934 until the United States entered World War II in December 1941 they attended an average of two other AMS meetings a year.

From 1935 to 1938 Helen Owens was an associate editor of the *American Mathematical Monthly* and edited the Mathematical Clubs section with her husband. During the late 1930s she formed a committee for the study of women's work in mathematics; she corresponded with various institutions and organizations and sent questionnaires to those North American women she was able to identify as holding PhD's in mathematics. At the summer mathematics meetings of 1937 in State College, she organized a luncheon honoring women pioneers in mathematical research in America. R. G. D. Richardson, then secretary of the AMS, suggested that she prepare a talk on her findings to be given to the MAA and a paper for inclusion in the *Monthly*. Although that presentation was never made, she did circulate a second round of questionnaires in 1940 and, at about that time, gave a speech, most likely at a meeting of Sigma Delta Epsilon, "Early Scientific Work of Women and Women in Mathematics." Correspondence, completed questionnaires, a copy of the talk, and other materials related to her study of women's work in mathematics

are in her papers at the Schlesinger Library. Notes for, and a draft of, a book on women in mathematics and science are also listed as being in these papers.

Several of the letters in Owens' papers at the Schlesinger Library indicate that she was much appreciated by other women mathematicians. For example, on February 4, 1937, [Sister Mary Felice Vaudreuil](#) wrote about the 1936 summer meetings: "We Sisters appreciated very much your kind friendliness toward us at the Boston meeting. I can well understand that most people do not know what to make of us so we appreciate the more the friendliness of those who are kind to us. Such meetings are a very great inspiration and I like to attend them in spite of the fact that my dress seems out of place." Later, on May 22, 1940, [Ruth Mason Ballard](#) wrote to Owens that "you were so kind to me . . . when I was homeless and jobless, that you have a very special place in my regard."

In 1940 Helen Owens was hired as an instructor by Pennsylvania State College and was promoted to assistant professor in 1945. Both she and her husband retired in 1949, she as assistant professor emeritus and he as professor emeritus. They were living in State College at the time of the death of F. W. Owens on June 23, 1961. She lived the last three years of her life at the home of her surviving daughter, a physician at the Newton D. Baker Veterans Hospital in Martinsburg, West Virginia. Helen B. Owens died in Martinsburg in 1968 at age eighty-seven. In her 1936 letter to Mary Newson she had expressed her preference for cremation. She was survived by her daughter and five grandchildren.

**Organizational affiliations:** AMS, MAA, Sigma Delta Epsilon, AAUW, Sigma Xi, Pi Mu Epsilon.

**Dissertation:**

**1910** Conjugate line congruences of the third order defined by a family of quadrics. PhD dissertation, Cornell University, directed by Virgil Snyder. Typescript. Printed version, 1913, reprinted from *Amer. J. Math.* 35:323–56.

**Publications:**

**1902** [Brewster, H. B.] On collineations of space which leave invariant a quadric surface. *Kansas Univ. Sci. Bull.* 1:281–303. Reviews: *JFM* 34.0678.01 (E. Salkowski); *Rev. semestr. publ. math.* 11, pt. 2: 17 (E. N. Martin). Presented by H. B. Newson as "The group of collineations leaving a quadric surface invariant" to the AMS, Evanston, IL, 3 Sep 1902; abstract: *Bull. Amer. Math. Soc.* 9:93 #30.

**1913** Conjugate line congruences of the third order defined by a family of quadrics. *Amer. J. Math.* 35:323–56. Published version of PhD dissertation. Reviews: *JFM* 44.0746.01 (E. Lampe); *Rev. semestr. publ. math.* 22, pt. 1: 2 (E. B. Cowley).

**1927** Review of *College Geometry*, by N. A. Court. *Amer. Math. Monthly* 34:326–28.

**1936a** with F. W. Owens. A directory of mathematics clubs in colleges and universities of the United States and Canada. *Amer. Math. Monthly* 43:420–31.

**1936b** with F. W. Owens. Kappa Mu Epsilon. *Amer. Math. Monthly* 43:182.

**1936c** with F. W. Owens. Kappa Mu Epsilon of Northeastern Teachers College, Oklahoma. *Amer. Math. Monthly* 43:102.

**1940** Review of *Mathematical Clubs and Recreations*, by S. I. Jones. *Amer. Math. Monthly* 47:559.

**Abstract not listed above:**

**1939** Mathematics clubs, old and new. *Amer. Math. Monthly* 47:139 #5. Presented to the MAA, Bethlehem, PA, 2 Dec 1939.

**References to:** [BioWMath](#), [WhoAmW](#) 2, [WomWWA](#).

Rogers, Mary B. "Women Voters to Mark 40th: State College Woman Fought in 1st Ranks of Battle for Equal Suffrage." *Centre Daily Times* (State College and Bellefonte, PA), 25 Aug 1960.

"Deaths: Dr. Helen B. Owens." *Martinsburg Journal*, 7 Jun 1968.

**Related manuscript material:**

Helen Brewster Owens Papers, 1867–1948. Schlesinger Library, Radcliffe Institute, Harvard University. [Finding aid](#).

**Other sources:** Transcription of letter from Helen Brewster Owens to Mrs. Newson, 31 Jan 1936, given to the authors by Caroline Newson Beshers, a copy of which also is in the Mary Winston Newson Papers in the Sophia Smith Collection; Division of Rare and Manuscript Collections, Cornell University Library; Sophia Smith Collection, Smith College; communication with Wells College Archives; Martha B. Caldwell, "[The woman suffrage campaign of 1912](#)," *Kansas Historical Quarterly* 12 (1943): 300–326; WhAm 4 (Owens, Frederick William); US Census 1880, 1900 KS, 1910, 1920 NY, 1930 PA.

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