

FRANK BURNETT DAINS AND HIS HISTORY OF CHEMISTRY COLLECTIONS AT THE UNIVERSITY OF KANSAS

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Presented at the Bolton Society Symposium
Notable Antiquarian Chemistry Book Collectors and their Public Collections
222nd American Chemical Society National Meeting
Division of the History of Chemistry
Chicago, Illinois, August 28, 2001 (1)

Introduction

Frank Burnett Dains would be a charter member of the Bolton Society if he were alive today. Dains had a life-long love for and collected many types of materials related to the history and development of the chemical and related sciences and technologies. He developed a strong historical collection for the library of the chemistry and pharmacy departments at the University of Kansas from 1911–1941. He also developed a personal collection of images focusing on the individuals important to the history of chemistry and other sciences in Europe and the United States. This paper will illuminate Frank Burnett Dains's collecting and collections and his activities relating to the promotion of the history of chemistry throughout his life (2).

A Man of Future Prominence

Frank Burnett Dains was born on January 15, 1869 at Gouverneur, New York, near Watertown. His father was the Reverend George G. Dains, Principal of Gouverneur Wesleyan Seminary. His mother was Celestia Stone (Burnett) Dains, Preceptress at the same seminary (3). From

earliest boyhood he maintained an interest in history and other cultural subjects. Dains graduated in 1890 with a major in chemistry from Wesleyan University (Figure 1), in Middletown, Connecticut, his father's alma mater. He continued there, earning his master's degree in 1891, and working for several years thereafter as Assistant in Chemistry. His professors at Wesleyan included Wilbur Olin Atwater, W. P. Bradley and Edward Bennett Rosa (4).

Dains attended his second American Chemical Society (ACS) convention in Chicago in 1893, which was held in conjunction with the World's Columbian Exposition and the World's Congress of Chemists. Charles A. Browne, in *A History of the American Chemical Society, Seventy-five Eventful Years*, included Dains on a selected list of men of future prominence who attended this joint ACS-world congress which greatly expanded the number, distribution and quality of ACS membership (5).

The academic year 1893-94 found Dains in Lawrence, Kansas, at the University of Kansas, hired in a temporary appointment as Assistant Professor of Chemistry while Edward Curtis Franklin was on leave for graduate work at Johns Hopkins University. Dains taught organic chemistry and organic preparations (6).



Figure 1. Frank Burnett Dains (1869–1948), Wesleyan University graduation photograph, 1890.

Dains received an offer, in May of 1894, from the University of Chicago for a fellowship in the Department of Chemistry (7). Thus began Dains's doctoral work. In November of 1894, he received a letter from Ira Remsen, editor of the *American Chemical Journal*, accepting two articles from Dains for publication (8). He would go on to publish approximately 75 journal articles during his career, over half in the *Journal of the American Chemical Society*. Seventy of his articles involved his research in the organic chemistry of heterocyclic compounds. Only five of his journal articles dealt with the educational or historical aspects of chemistry (9).

Dains continued work on his doctoral research in chemistry under Julius Stieglitz and John U. Nef at the University of Chicago and earned his PhD in 1898 (10). On September 24, 1898, he married Alice Haight of Freeport, Illinois. Alice Haight Dains was educated at Goucher College, in Baltimore, Maryland and the University of Chicago, where she earned an AB degree (11). Dains continued to work in Chicago for several years as Assistant Professor of Chemistry at Northwestern University's Chicago Medical College, with John Harper Long (12). Long, who in 1903 became president of ACS, was in 1877 the first student to graduate from the University of Kansas having taken the Chemistry Course (13). This experience influenced Dains's later collecting which reflected an interest in what is today called medicinal chemistry.

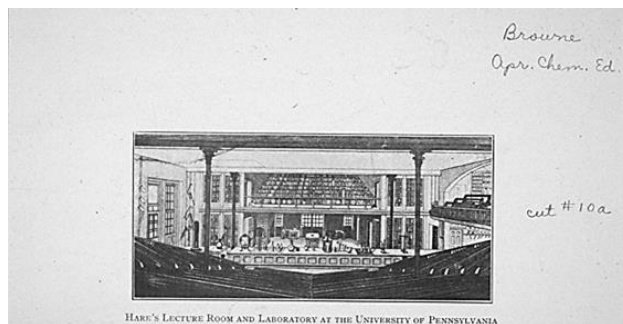


Figure 2. “[Robert] Hare’s Lecture Room and Laboratory at the University of Pennsylvania,” ca. 1831.

During 1901 and 1902, Dains did postgraduate work and served as an instructor at Freiburg in Germany, where he studied under the famous organic chemist, Ludwig Gattermann. Before returning to America, Dains spent a semester at the University of Berlin, where he attended the lectures of Jacob Van't Hoff and others. Dains and his wife, who remained childless throughout their long and happy marriage, most likely began their collections of portrait medallions, old pewter, old books and engravings, during this period in Germany. They visited the famous universities of England, Scotland, Spain, France, Germany, Italy, Switzerland, Poland and Sweden in later summer vacations. These trips enabled Dains to add to his collections of images (Figures 2–4, 7), books, and journals on the history of chemistry (14).



Figure 3. Chemical Laboratory of Robert Wilhelm Bunsen, University of Heidelberg, ca. 1853–1899.

On returning from Germany in the late summer of 1902, Dains accepted the position of Professor in the College of Liberal Arts and the College of Medicine at Washburn College (now University) in Topeka, Kansas (15). Here he taught organic chemistry from 1902 to 1911. Dains immediately joined the Kansas City Section of ACS that had been founded only two years before (16). He continued to be an active member of the Kansas City Section

throughout his life. He gave a number of papers on various research and historical topics at these meetings (17).

Early Collecting and Writing

In 1905 Dr. and Mrs. Dains spent the summer in Europe. The following spring, Dains gave a paper to the University of Kansas Chemical Club, a club for undergraduate chemistry majors, entitled “Some Chemical Laboratories of Denmark, Sweden, and Germany.” According to an article in the student newspaper, he had visited these countries and studied the departments of chemistry and pharmacy in the larger institutions. “While on his trip he acquired quite a number of valuable old books and pictures and he used these in illustrating his remarks. The address aroused a great deal of interest among the students in regard to historical chemistry” (18). This presentation is the first evidence I was able to find showing that Dains was actively collecting in the history of chemistry.



Figure 4. Old lecture room of Justus von Liebig, University of Munich, ca. 1852–1873.

In 1909 Dains served as President of the Kansas Academy of Science. His presidential address in 1909 was published (in 1911) in the *Transactions of the Kansas Academy of Science* and entitled “Silliman, Hare and Cooke, and their Relation to American Science” (19). This was his first published paper on the history of chemistry and it reveals Dains broad liberal arts background and philosophy regarding the goals of educators of chemistry.

In March of 1910 the Kansas City Section of ACS met at the University of Kansas in Lawrence and Dains gave a paper entitled “The History of the Development of the Elements,” most likely illustrated with lantern slides (20). The lecture showed Dains’s interest in this topic quite early in his study of the history of chemistry. It would surface again later in publications in association with Mary

Elvira Weeks, a future colleague at the University of Kansas (21).



Figure 5. Inscription on monument of Benjamin Silliman (1779–1864), Grove Street Cemetery, New Haven, CT.

Dains was hired in a tenure track appointment in the fall of 1911 as Associate Professor at the University of Kansas. He was promoted to Professor of Chemistry at the University of Kansas in 1914 (22). Over the years he taught elementary organic chemistry, advanced organic chemistry, organic preparations, advanced topics in organic chemistry, organic chemistry research, the history of chemistry, and thesis. He was the first professor to initiate research in organic chemistry at the University of Kansas, making notable contributions to the chemistry of aldehydes, thiazoles, imidazoles, pyrazoles, and derivatives of urea. This research helped to lay the foundations for the synthesis of several important miracle drugs and the discovery of the structures of Vitamin B1 and penicillin (23). Dains was elected a Fellow of the American Association for the Advancement of Science in 1896, and he was one of the 1,000 “leading scientific men of the United States” identified by a star in *American Men of Science* in 1927 (24).

Dains contributed substantially to the building of the chemistry and pharmacy collections of the library at the University of Kansas (25). He purchased many historical monographs and many long runs of early journals in chemistry and pharmacy published in the United States and Europe. From about 1900 until 1924 the departmental chemistry and pharmacy library was located in the Chemical Laboratory at the University of Kansas (26). Many of these materials were surely purchased on Dains’s summer trips to Europe. Many are still located in the Anschutz Library while the older, more valuable items have been

moved to the Special Collections Department of the Kenneth Spencer Research Library at the University of Kansas. Dains's volumes can frequently be identified by his book plate (Figure 6) and/or his distinctive signature on the inside front or back cover of the volumes (27).



Figure 6. Dains's bookplate.

In 1919 Dains gave two series of lectures to the University of Kansas Chemistry Club, made up of chemistry and chemical engineering undergraduates, one entitled "The History of Chemistry" and the other "Use of the Chemistry Library" (28). In the lectures on the use of the chemistry library he expressed the following view:

Not only is the laboratory, where he investigates the practical end of the science . . . a working tool for the chemist, but equally so is his library, which must be the starting point of any investigation. Progress can only be made by the utilization of the enormous amount of data that has been accumulated in the past. Hence, for the chemist there is nothing more important or time-saving, than an acquaintanceship with not only the special literature of his subject, but also with the general literature of chemistry. Having a practical acquaintanceship with the library and its books is an asset which should be cultivated by every chemist (29).

On April 27, 1921 Dains attended and spoke at the first informal meeting of ACS's Section of History of Chemistry held at the Rochester, NY, ACS Meeting in Room 111 of Mechanics Institute, 55 South Plymouth Ave at 9:30 (30). In Charles A. Browne's November 1937 article in the *Journal of Chemical Education*, entitled "The Past and Future of the History of Chemistry Division" he

states that Dains was among about 30 chemists who attended this first meeting (31). Browne includes excerpts from his notes that mention Dains describing a collection of rare old chemical and medical books that he had seen at the library of Transylvania University in Lexington, Kentucky. The collection included many books once owned by Thomas Cooper (32). Browne also quoted Dains as expressing "the opinion that it might be well for ACS to publish historical monographs upon certain topics of interest to chemists in the United States" (33). Edgar Fahs Smith feared that the interest in historical chemistry was not as yet sufficiently widespread to create a demand for such monographs. It would take another fifty years before such a series was begun by ACS. Historical collections were shared at these meetings, a tradition that continued for many years.



Figure 7. Berthold Schwarz, German monk and alchemist, experimenting with gunpowder, 1643.

The first official meeting of ACS's Section of the History of Chemistry was held in April of 1922, at Birmingham, AL (34). Dains continued to be an active member during the rest of his academic career, often serving as Chairman or on the Executive Committee of the Section—and later the Division—of the History of Chemistry (HIST) (35). Dains gave many papers at the national meetings on a variety of topics (36). Unfortunately, most of these were not published and have not survived.

Doing Much for Historical Chemistry

The *Journal of Chemical Education* was founded in 1924 (37). Dains was a contributing editor and remained so for many years. He provided abstracts of historical ar-

ticles from other publications, provided illustrative material for the frontispieces and various articles, from his historical image collections. The intention to include historical articles in the *Journal of Chemical Education* was specifically mentioned in the Editors' Outlook of the December 1924 issue (38). The January 1925 issue included an article by Lyman C. Newell entitled "The Founders of Chemistry in America," which included a page of photos of men who had done much for historical chemistry in America. In addition to Dains, Edgar Fahs Smith, Charles A. Brown, George L. Coyle, and Newell himself were included (39).



Figure 8. "The Good Effects of Carbonic Gas.!!!"
London, 1807.

At the ACS Cincinnati Meeting in September 1930, Dains gave a paper entitled "John Griscom and His Impressions of English, French, and Swiss Chemists in 1818 and 1819" (40). In 1931 it was published as a lengthy article in the *Journal of Chemical Education* (41). John Griscom, a Quaker schoolmaster and teacher of chemistry in New Jersey and New York, published a volume about his travels in England, Scotland, Ireland, and on the Continent. Dains's article summarized Griscom's impressions of twenty chemists he met during his trip, including John Dalton, Humphry Davy, Jöns Jacob Berzelius, and Mrs. Jane Marcet. The article was liberally illustrated from Dains's image collection.

In 1932 Dains created an exhibition at the Spooner-Thayer Art Museum at the University of Kansas of 19 early printed books from Antwerp, Venice and Paris from

his collection (42). According to Mary Elvira Weeks, by then an Assistant Professor of Chemistry at the University of Kansas, "among his most treasured books are: an Italian edition of Geber published in 1542, a first edition of Oswald Crollius, a first edition of one of Boyle's tracts, a copy of Berzelius' treatise on the blowpipe bearing Sefström's autograph, and a copy of the English translation of Agricola's *De Re Metallica* by Ex-president [sic] and Mrs. Hoover" (43).

Dains was again Chairman of the Division of the History of Chemistry in 1933 (44). At the ACS Washington, DC Meeting in March, Dains gave a paper entitled "The European Experiences of Benjamin Silliman, Sr." (45). Also at the meeting, in commemoration of the 200th anniversary of the birth of Joseph Priestley, a historical exhibition of books, letters, and prints was set up by members of the Division at the Library of Congress (46). A photograph (Figure 9) was found in Dains's collection and it is likely that he was involved in the preparation of the exhibition, which was so popular that it was continued for nine months (47).



Figure 9. Exhibits related to Joseph Priestley and the historical developments of chemistry at the Library of Congress, 1933 (Notes 46, 47).

At the September 1933 meeting of the Division of the History of Chemistry, Dains presented a paper entitled "William Allen, F.R.S., 1770–1843, the Quaker Chemist" (48). Also at this meeting a special dinner was held at the Chicago Chemists Club (Figure 10), to celebrate the fortieth anniversary of the World's Columbian Exposition held in Chicago in 1893, as part of the Century of Progress. Dains gave the concluding talk entitled "Reminiscences" (49).

The first edition of *The Discovery of the Elements* was published in 1933, a reference book by Mary Elvira Weeks. Many of the chapters were originally articles published in the *Journal of Chemical Education*. This book went through seven editions, each of which acknowledged

Dains's contribution of many of the illustrations from his historical image collection (50).



Figure 10. *Chicago Chemists Club at the 40th Reunion of the 1893 ACS Meeting, 1933.*

In the March 3, 1935, issue of the student newspaper, *The University Daily Kansan*, an article reports that Dains displayed some examples of early printing, one of his personal interests, in the exhibit case near the entrance of the Chemical Laboratory at the University of Kansas. Included in the exhibition were a clay cuneiform tablet dating from about 2350 BC, a second century sheet of papyrus with possibly Greek characters, and a sixteenth-century text by Thomas Linacre containing works of Galen, the famous Greek physician. Dains owned a chemistry book by the medieval alchemist Geber printed in 1542, which contained “underlined sentences, notes, and a sketch of what could be an apparatus for making sulfuric acid.” It appears that students have not changed much in the last four hundred years (51)!

On March 24, 1936, Dains gave the first Forris Jewett Moore Lecture under the auspices of the Chemistry Department of the Massachusetts Institute of Technology, entitled “European Experiences and Acquaintances of Benjamin Silliman in 1805 and 1851.” This lecture series was established to heighten interest in chemistry and make evident its cultural and humanistic relations. The notice for the lecture went on to state that “Professor Dains is a distinguished student of the history of chemistry, outstanding for his contributions to the history of American chemistry and of its relations to European chemistry” (52).

With Mary Elvira Weeks, Dains presented a paper in the spring of 1936 at the Division of the History of Chemistry meeting, entitled “Mrs. A.H. Lincoln Phelps and Her Services to Chemical Education” (53). The paper was published in 1937 in the *Journal of Chemical Education* (54).

This was his last historical article to be published and his only article about a woman scientist.



Figure 11. *“Outstanding Faces of this Week’s Convention.” (55)*

An enthusiastic collector

In 1940 on the 50th anniversary of his graduation from Wesleyan University, his alma mater granted Dains an honorary Doctor of Science degree (56). They recognized that he had been “for nearly fifty years a sympathetic and inspiring teacher of chemistry, a distinguished investigator in the field of organic synthesis, graduate school administrator, enthusiastic collector of historical scientific documents, and national authority on the past as well as the present development of the science of chemistry” (57).

In April 1941 Dains presented a paper to the Division of the History of Chemistry at the ACS St. Louis Meeting entitled “Chemical Cartoons” (58). He had in his collections a fair number of chemical cartoons and caricatures, both historic and modern (Figures 8, 11–13).



Figure 12. *“Brother Magnetizer” Silvanus P. Thompson (1851–1916), author of Elementary Lessons in Electricity and Magnetism, from the program of a talk on crystals of snow.*

It was to be his last ACS meeting. Early in the fall of 1941 Dains suffered a paralytic stroke. Although he was able to get about his home and enjoyed visits from students and faculty, Dains retired from teaching and professional activities. He died on January 5, 1948, ten days short of 79 (59). In his honor, the Alpha Chi Sigma professional chemistry fraternity established the Frank Burnett Dains Memorial Lectureship at the University of Kansas (60). When Mrs. Dains died a year later, a gift in her will to the Kansas University Endowment Association provided funding for the lectureship which continues to bring outstanding chemists to the University (61).



Figure 13. “Sir Frederick Augustus Abel, Bart. Able Professor and Dynamite Detector,” (1827–1902), invented cordite.

The many historical papers given and published by Frank Burnett Dains throughout his professional career were illustrated using his large collection of lantern slides and his extensive printed image collection relating to the history of chemistry, a few of which are shown here (62). There are approximately 2500 3"×5" glass lantern slides and 1700 printed images and related material in the image collection. The printed image collection focuses on European and American chemists, pharmacists and other scientists. The lantern slide collection is larger because it has a number of topical slides on general and applied chemistry and related pharmaceutical and medical topics. The printed images are in a number of formats, including engravings, etchings, post cards, and photographic prints. There are also a smaller number of pamphlets, letters, newspapers, etc. in the print collection.



Figure 14. C. A. (Charles Albert) Browne post card, December 7, 1929, addressee not shown but presumably was Dains. “I had enjoyable visits with Holmyard, Pilcher, Gunther, Singer and other historical enthusiasts . . . [and] spent some time examining old alchemy manuscripts and visiting historical chemical collections.”

Dains collected images from many sources and also traded images with other collectors who belonged to the Division of the History of Chemistry and other chemists he met on his travels to Europe. A post card from Charles A. Brown (Figure 14) illustrates the type of activities and relationships these early collectors enjoyed. A number of his images were acquired from Richard B. Pilcher, Registrar and Secretary, of the Royal Institute of Great Britain and Ireland in London. As late as 1938, Dains received a letter from Pilcher encouraging him to continue collecting (63). All of the images I have shown are reproduced from Dains’s historical chemical collections.

Conclusion

Today we are here to begin a series of symposia to commemorate early American chemical bibliophiles (64). Frank Burnett Dains’s collections of historical chemical printed images and lantern slides and his early books and journals on the history of chemistry remain at the University of Kansas. Many of the images from his collection are available in libraries throughout the world, as published in Mary Elvira Weeks’ *The Discovery of the Elements* (65). Dains displayed throughout his life the common characteristics of a chemical bibliophile, as described by the Bolton Society documentation—the love for books and images, the passion for collecting, the thrill of the search, and the joy of sharing and swapping stories about historical chemical materials.

Acknowledgements

I wish to thank Jim Bohning, American Chemical Society Staff Writer, who in 1997 suggested Dains to me as a topic for research. Funding is gratefully acknowledged from the University of Kansas Libraries and the Chemical Heritage Foundation to permit travel to present this paper.

Photo and Image Credits

The photographs and images in this paper are intended to illustrate the range of the Dains's collection from which they are drawn (Note 62). They are used courtesy of University Archives, Kenneth Spencer Research Library, University of Kansas.

References and Notes

- The paper as originally presented is indexed in *SciFinder* 2001:639034 as Neeley, K. L. Frank Burnett Dains and his History of Chemistry Collections at the University of Kansas. *Abstracts of Papers*, 222nd ACS National Meeting, Chicago, IL, United States, August 26-30, 2001; p HIST-029.
The present version, created in 2018, adds 1) the references and notes, 2) fourteen of the original paper's 25 overhead slides, here used as illustrations, and 3) formatting and style as in the *Bulletin for the History of Chemistry*.
- Dains's personal papers are housed in the Frank B. Dains Collection, University Archives, PP 36, Kenneth Spencer Research Library, University of Kansas Libraries (hereinafter designated KUA-PP36). A Guide to the collection is available online.
- E. C. Bruce, "Memoirs: Rev. George G. Dains," *Minutes of the Thirteenth Session of the Northern New York Conference of the Methodist Episcopal Church held in Ogdensburg, N. Y., April 9th to 14th, 1885*, Chas. E. Holbrook, Wauertown, NY, 1885, pp 32–33. E. C. Bruce, "Memoirs: Mrs. Celestia S. Dains," *Minutes of the Seventeenth Session of the Northern New York Conference of the Methodist Episcopal Church held in Lowville, N. Y., April 10th to 16th, 1889*, The Secretaries, n.p., 1889, p 39.
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 27. Most of the monographs previously owned by Dains that are now in the Special Collections Department are identified in the University of Kansas Library's online catalog by a note in the record referring to Dains's bookplate. Additional ones are listed only in the Department's Gifts and Provenance card file. Most volumes are in the general rare book collection.
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"Von Gedenkwurdiven Sachen" printed by the M. Stephanum Vigilium press in Frankfurt am Mayn, 1591, which has a manuscript binding; "Basilica Chymica" by the Croll press in 1609 which has a manuscript binding; "Platus" by the Platin press of Antweipt in 1589; "Plautus" by the Elzevir press in 1652.

"Theophrastus Paracelsus" in 1563; Ovid's "Metamorphoses" by the Aldine press in 1502; Robert Boyle, a book on tracts concerning the saltiness of the sea, in 1674; "Epistolae Marsilii Ficini" of the Koberger press in 1497; "Pharsaliae" in 1509; Julius Caesar's "Commentaries" by the Aldus press in Venitia in 1547; "Aesop's Fables" in London in 1579; "Book of Hours" on the Vellum press in 1450.

"De Modo Penitendi" by the Jean Lambert press in Paris about 1500; "Leeuwenhoek" in 1695; "Saint Augustine" in 1486; "Greek Anthology" by the Henricus Stephanus press in 1566; "Works of Catullus" by John Baskerville in 1772; "Josephus" by the Froben press in Basel in 1554; and Dioscorides' "Materia Medica" in 1598. This last book contains many illustrations.
- Copies of most of these titles are now in the Special Collections Department of the Kenneth Spencer Research Library at the University of Kansas. Some have Dains's book-

- plate. Others' provenance is not clear. See also Note 27.
43. Ref. 4. The Hoovers' translation was published in 1912, before Hoover was president. Dains's copy was autographed. F. B. Dains to H. Hoover, July 3, 1933, KUA-PP36.
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 53. Program of the Kansas City Meeting, Division of the History of Chemistry, *Ind. Eng. Chem., News Ed.*, **1936**, *14*, 101.
 54. M. E. Weeks and F. B. Dains, "Mrs. A. H. Lincoln Phelps and Her Services to Chemical Education," *J. Chem. Educ.*, **1937**, *14*, 53–57.
 55. Other than "Here's Howe" the faces are unidentified, as are the convention, date, artist and source. Left-to-right, the faces are labeled "President," presumably of the American Chemical Society; "Here's Howe" undoubtedly H. E. (Harrison Estell) Howe, editor of *Industrial and Engineering Chemistry* beginning in 1921, often announced by "Here's Howe!," who died in December 1942, meaning the caricature was probably done after 1920 and no later than 1942; "Uncle Charlie," possibly C. A. (Charles Albert) Browne, coauthor with Mary Elvira Weeks of *A History of the American Chemical Society: 75 Eventful Years* (1952); and "Chairman" possibly of the ACS board of directors, the History of Chemistry Division, or the Industrial and Engineering Chemistry Division.
 56. Program, Honorary Degrees, Wesleyan University Commencement, June 16, 1940, KUA-PP36. "Scientific Notes and News," *Science*, **1940** (June 28), *91*, 615. "Wesleyan Hears Douglas Call for Sacrifice in U.S." [report of Wesleyan University's 108th commencement exercises], *New York Herald-Tribune*, July 1, 1940.
 57. "Honor Dr. Dains," *Douglas County Republican* (Lawrence, KS), July 4, 1940.
 58. Program of the St. Louis Meeting, Division of the History of Chemistry, *News Ed., Am. Chem. Soc.*, **1941**, *19*, 334. "Chemistry Professors Spend Week in St. Louis," *University Daily Kansan* (Lawrence, KS), Apr. 8, 1941.
 59. R. Taft, *Fifty Years in Bailey Chemical Laboratory at the University of Kansas*, Department of Chemistry, University of Kansas, 1950, p 21. Obituaries of F. B. Dains: *Journal-World* (Lawrence, KS), Jan. 5, 1948; *University Daily Kansan* (Lawrence, KS), Jan. 6, 1948; *Graduate Magazine of the University of Kansas*, Jan. **1948**, *46*, 12.
 60. "A Dains Memorial," *Journal-World* (Lawrence, KS), Jan. 10, 1949.
 61. University of Kansas News Bureau news release, November 25, 1950, KUA-PP36.
 62. Dains's collection of slides and images is housed in University Archives, Kenneth Spencer Research Library, University of Kansas Libraries, location "University of Kansas, Department of Chemistry records, Frank B. Dains History of Chemistry Lantern Slides and Photographs," RG 17/22. A 63-page classified inventory of the slides is available in University Archives.
 63. R. B. Pilcher to F. B. Dains, Nov. 10, 1938, KUA-PP36.
 64. Chemical Heritage Foundation, Bolton Society, Symposia on Notable Antiquarian Chemistry Book Collectors and Their Public Collections. Five symposia were held during 2001–2003.
 65. Ref. 50.

About the Author

Kathleen Neeley, MSLS, graduated with a BS in chemistry from Chatham College and a degree in library science from Syracuse University. She has worked in corporate, medical, scientific and academic libraries, the last twenty-seven years at the University of Kansas. Her current position is assistant archivist in University Archives at the Kenneth Spencer Research Library. Her research interests are the history of chemistry, women scientists, and women academicians.