

America's First African American Women Veterinarians: Alfreda Johnson Webb and Jane Hinton

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After the first woman (Mignon Nicholson from McKillip Veterinary College) was awarded a Doctor of Veterinary Medicine degree in the United States in 1903, followed by two more women in 1910 (Elinor McGrath from Chicago Veterinary College and Florence Kimball from Cornell University),¹ the number of women graduating from veterinary school increased gradually and sporadically over subsequent decades. Yet, more than 45 years lapsed before the first women veterinarians of African descent graduated from American colleges of veterinary medicine. To put this milestone into context, a survey by Calhoun and Houpt in 1976 noted 39 women veterinary graduates over the 37-year period from 1903 to 1940 and another 117 during the 10 years between 1941 and 1950.²

Alfreda Johnson Webb (1923-1992) and Jane Hinton (1919-2003) were the first two African American women veterinarians in the United States, receiving their doctoral degrees a month apart in 1949 from Tuskegee University and University of Pennsylvania, respectively.³ They were among the 25 women graduating from veterinary colleges in the US and Canada in 1949, "a record number up to that time."⁴ The solid educational credentials of both Drs. Webb and Hinton enabled their productive professional careers, with achievements in teaching, research, clinical practice, and regulatory medicine. They not only personally contributed significantly to veterinary medicine, but also were associated with "firsts" in several other areas.⁵ They represent the beginnings of opportunities for diversified careers for women of color that would increase in years since this pioneering milestone.

Alfreda Johnson Webb, BS, DVM, MS

Dr. Webb's 43-year academic career in college-level teaching and active involvement in civic and political affairs during her lifetime garnered recognition and many accolades.⁶ (Fig. 1)

Background and Education

Born in Mobile, Alabama on February 21, 1923, Alfreda Wilhelmina Johnson graduated from Tuskegee High School in 1939 and attended Tuskegee Institute (later renamed Tuskegee University in 1985) to earn a BS degree in 1943. After teaching mathematics in high school for several years, she decided to pursue an interest in the biological sciences, particularly anatomy and physiology. "Almost like taking on a dare," she decided to apply and was accepted to join the inaugural class at the newly established School of Veterinary Medicine at Tuskegee.⁷ In the fall of 1945, the first class of 13 veterinary

students matriculated, with only 5 of them, including Alfreda, graduating 4 years later with DVM degrees in May 1949.⁸ (Fig. 2) The veterinary curriculum had been many years in planning, largely through the efforts of Dr. Frederick Douglas Patterson and others. This new college opened up significant opportunities for Black students to pursue careers in veterinary medicine.

Larsen noted that Alfreda "did very well as a student, but she has said that veterinary school was sometimes hard because she was aware of a general opinion that, as a woman, she didn't belong there. A classmate's recollection is that within their tiny class, things were pretty friendly all around."⁹

Several months before finishing veterinary school, Alfreda Johnson married Burleigh Carlyle Webb (1923-1997) on January 2,



Figure 1. Alfreda Johnson Webb.

Source: Larsen PH. Alfreda Johnson Webb: An African-American pioneer. *Our History of Women in Veterinary Medicine: Gumption, Grace, Grit, and Good Humor*. Littleton, CO: Association for Women Veterinarians, 1997; p. 36.



Figure 2. Tuskegee University College of Veterinary Medicine graduation class 1949. (l. to r.) Demetrice L. Lyles, Forde B. McWilliams, Alfreda Johnson Webb, Earl V. Brown, and Walker Poston (not shown). Courtesy of Tuskegee University College of Veterinary Medicine.

1949.¹⁰ He was on the faculty at Tuskegee as department chair of agronomy. They both traveled to Michigan State University (MSU) to pursue advanced degrees.¹¹ An agronomist, he obtained a PhD in crop science at MSU in 1951. Such opportunities for advanced study fostered professional development among Tuskegee faculty of the school as it was evolving.¹²

Dr. Webb also became the first African American woman to be licensed to practice veterinary medicine in the US.¹³ Although a professional veterinary license was not required for her soon-to-be faculty position, she took and passed the Alabama state board examination “like another dare from Dr. Webb’s point of view.”^{14,15} Her daughter recalls that “she is remembered as having passed with the highest grade that year.”

Concerning her career path, “Dr. Webb’s daughter reports that her mother didn’t consider going into practice because she felt she would not be able to balance family with that kind of work. As Dr. Webb put it, ‘Doctors have hospitals with nurses and technicians and so forth, but veterinarians don’t.’ Besides, says her daughter, ‘She was born to teach.’”¹⁶

College Teaching

Upon graduation, Dr. Webb took a position as instructor in anatomy at her alma mater but was soon granted a leave of absence to obtain a master’s degree in anatomy from MSU’s College of Agriculture and Applied Science in 1951. Her master’s thesis was titled, “The microscopic anatomy of the skin of mongrel dogs.”¹⁷ It was published, with Dr. M. Lois Calhoun, in the *American Journal of Veterinary Research* in 1954.¹⁸ At the time, Dr. Calhoun was chair of the MSU Department of Anatomy. Interestingly, in 1948, Dr. Calhoun, a 1939 Iowa State College graduate, was the first female department head appointed at a college of veterinary medicine in North America, a position she held for 24 years.

After completing requirements for her master’s degree and returning to Alabama, Dr. Webb joined Drs. Lloyd B. Mobley and Raymond C. Williams in the Department of Anatomy at Tuskegee in 1950.¹⁹ She remained on the faculty until 1959 during which time she was promoted to Associate Professor. Adams reported that²⁰ “Dr. Alfreda J. Webb was an outstanding teacher who earned great respect and love from her students and colleagues. Beginning in 1951 and continuing until 1959, she was in charge of the courses in microscopic and developmental anatomy. She gave nearly a decade of service to the department and made important contributions to the seriously understaffed teaching faculty.” Furthermore, he said, “As the first female faculty member, she was welcomed as a strong incentive to attract more women to the veterinary profession.” When Dr. Steve Goldberry was hired in 1957 and Dr. Robert L. Judkins (from the class of 1950), who had spent years in the anatomy dissection laboratory, was able to begin teaching gross anatomy full time, those personnel changes enabled Dr. Webb to have full responsibility for the microscopic anatomy courses.²¹

In 1959, the Webb family, which included 2 sons and a daughter, relocated to Greensboro, North Carolina, when Dr. Burleigh Webb was offered a position as a department head at the School of Agriculture at North Carolina Agricultural & Technical State College (NC A&T), his undergraduate alma mater. A few years later, in 1962, he became dean of the school and served in that position for 32 years.²²

Dr. Alfreda Webb was appointed professor of biology at NC A&T, also initially teaching mathematics. (Fig. 3) “Her research areas included histology, cytology and embryology.”²³ In addition to instruction at NC A&T for almost 20 years from 1959 to 1978, Dr. Webb later served as professor and coordinator of Laboratory Animal Science beginning in 1977 until she retired.²⁴



Figure 3. College of Agriculture Faculty, 1968, showing Dr. Alfreda Webb (front row, third from right in white overcoat) and College Dean Dr. Burleigh Webb (second row, first on left). *Ayantee*. [Yearbook]. North Carolina Agricultural & Technical State University, 1968; p. 24. DigitalNC, <https://lib.digitalnc.org/record/28895?ln=en#?c=0&m=0&s=0&cv=0&r=0&xywh=-1699%2C-172%2C5655%2C3436>

Veterinary College Planning

In the late 1970s, the establishment of a veterinary college was under consideration for the state of North Carolina. Both Drs. Webb were involved in the planning process. In recognition of Dr. Alfreda Webb's veterinary and educational background, Dr. Terrence M. Curtin acknowledged that she "was an expert counsel to Dean Curtin during the planning and development phases of the School of Veterinary Medicine."²⁵

While the state legislature had approved the establishment of a veterinary college, the site had yet to be determined. Dr. Alfreda Webb "...and her husband who by then was then dean of the School of Agriculture, tried hard to get it located at Greensboro. As early as August 1974, rumors surfaced that NC A&T would launch an effort to get the SVM located there." In August and September when the "planning committee met with the dean of agriculture in Greensboro, the breadth of effort to locate the school on their campus was evident. According to Dean [Burleigh] Webb, 'the new school or at least a major component of it, should be located at A&T.'"²⁶

Instead, based on strength in the basic sciences, the Cole Report issued on April 29, 1974, by consultants commissioned by the Board of Governors recommended placement of the proposed School of Veterinary Medicine at North Carolina State University at Raleigh.

Later in December, the Board of Governors Subcommittee on Veterinary Medicine met with chancellors from the two campuses. They agreed "on the need to offer 'something' related to the veterinary school as a compromise for the agreement to locate the school in Raleigh. That 'something' was undefined except as a 'related activity.'"²⁷ There had been some misunderstanding in the use of "facility," but the "subcommittee reached agreement that construction would occur for a 'facility' at NC A&T to house the 'activity.'"²⁸

In order to move forward, Dean Curtin suggested that a laboratory animal technology option within the existing NC A&T animal science baccalaureate program be considered.



Figure 4. Dr. Alfreda Johnson Webb. Original source unknown; found at: Michigan Humane, 2021 Feb 19. <https://www.michiganhumane.org/black-history-month-in-animal-welfare-alfreda-johnson-webb/>

Not only would that avoid a prolonged effort for approval, but such unique coursework would be a popular curriculum in satisfying the need for trained personnel engaged for the growing number of research laboratory animal colonies in the country. The graduates would be highly marketable, and "as an added benefit, that degree option could serve as a 'feeder' program to attract minority students into veterinary medicine."²⁹ The proposal was met with enthusiasm. "Burleigh and Alfreda Webb would assume the lead in preparing the new option in the animal science curriculum at NC A&T....They established the curricular option and housed it in a building constructed with the \$5.7 million appropriated for A&T's 'related activity.'"³⁰

As a consequence, "the Webbs settled for a new building and the first institution in the southeastern United States to offer a bachelor's degree in laboratory animal science."³¹ As a graduate veterinarian, Dr. Alfreda Webb served as coordinator of Laboratory Animal Science from 1977 until she retired.

Completed in 1982, Webb Animal Science Hall was named for Burleigh Carlyle Webb, former dean of the School of Agriculture at NC A&T. Webb Hall continues to serve as "an educational and research facility for laboratory animal science and agriculture."³²

To recognize help provided by the North Carolina Veterinary Medical Association during the planning and development process and also to gain support from the entire North Carolina veterinary community, it was suggested that honorary alumni be recognized. Dr. Alfreda Webb was one of nearly 800 practitioners and other veterinarians living in the state who became Honorary Alumni of the new veterinary college at North Carolina State University in association with the dedication ceremony of the School of Veterinary Medicine building on April 20, 1983.³³

Political and Community Affairs

In addition to teaching, Dr. Webb was politically active in the Democratic Party of North Carolina in a number of roles. Her father had advised that "best voice one can have is politically."³⁴ In 1971, she was appointed to a vacancy by Governor Robert D. Scott, becoming the first African American woman to hold a seat as a member of the North Carolina General Assembly in 1972, but she lost her election bid for a full term to represent Guilford County.

Overall, "her political activity included service at all levels of the Democratic Party of North Carolina. Among those were being on a precinct committee and serving as a member at large from North Carolina to the Democratic National Committee from 1972 to 1980. She was also a delegate to the Democratic National Convention in 1976, minority affairs chair for the North Carolina State Democratic Executive Committee, and president of the Democratic Women of North Carolina."³⁵

Her life and memory were honored along with other African American legislators when the General Assembly ratified a Senate joint resolution on March 4, 2013.³⁶

Recognition and Awards

Not surprisingly, Dr. Webb received well-deserved recognition and a number of awards for her contributions and service. Adams noted,³⁷ “She was an effective, beloved and highly respected educator and community leader.” (Fig. 4)

In 2016, a \$50,000 Dr. Alfreda Johnson Webb Scholarship Award was established at the North Carolina State University College of Veterinary Medicine to cover educational expenses for two students from underrepresented groups. The initial endowment was funded by gifts from the North Carolina Minority Veterinarians Association, matched by \$25,000 from the R.B. Terry Charitable Foundation.³⁸



Figure 5. Crest of House Webb at North Carolina State University College of Veterinary Medicine.

houses are intended to promote intellectual growth, mental, emotional and physical health, and social and cultural development.

Concerning Tuskegee University, Adams noted,⁴⁰ “Over the years, she remained a very loyal alumna and a staunch supporter of the School of Veterinary Medicine until her untimely death in 1992. The esteem to which she was held by the Tuskegee University faculty, administration, alumni and student body was evident in that the School of Veterinary Medicine at Tuskegee University was selected as one of the memorial sites to pay tribute to her for long and faithful service to the profession.”

She also received Tuskegee University’s Distinguished Alumni Award in 1972 and was inducted into the NC A&T’s Agriculture Hall of Fame in 1999.⁴¹

Dr. Webb passed away in Greensboro on October 14, 1992, at age 69 and was buried at Lakeview Memorial Park in that city.⁴² “A dedicated alumna, she is remembered not only for her accomplishments in the veterinary profession, but also for her many community contributions.”⁴³

One of the four houses into which faculty, students, and staff are organized at the North Carolina State University College of Veterinary Medicine is named in honor of Dr. Alfreda Webb. The anatomical portrait of a dog depicted on House Webb’s green and gold crest (Fig. 5) “recognizes Webb’s dedication to teaching and her focus on companion and lab animals. The dog represents nobility, faithfulness, loyalty, teaching, protecting, guidance and honor.”³⁹ Those

Jane Hinton, BS, VMD

Earning her doctorate in veterinary medicine in 1949 as the second of two African American women to do so, Dr. Jane Hinton had a varied career that began in biomedical research and was continued in private veterinary practice and regulatory medicine in later years.⁴⁴ She was a co-developer of the Mueller-Hinton Agar, a culture medium that remains one of the most used microbial agar plates today for testing antibiotic resistance among bacteria, “a product that revolutionized the medical world.”

Background and Education

Jane Hinton was born on May 1, 1919, in Canton, Massachusetts, one of two daughters of William Augustus “Gus” Hinton (1883-1959), a noted bacteriologist, pathologist, and educator, and Ada Hawes Hinton (1878-1958), a high school teacher and social worker.

By 1916, the family had moved to a modest house on 4 acres at 154 Dedham Road in Canton, Massachusetts, about 20 miles southwest of Boston.⁴⁵ (Fig. 6) There, they spent over 45 years developing the property into “a dear and cozy little home.” It seems “Dr. [W.A.] Hinton loved both gardening and furniture making.” It was noted that “the pool was always filled with lilies of all colors, there was a tennis court, a rose garden, and an orchard and grape vines on the hill with every kind of fruit tree that grows in this part of the country...He also worked to cut paths into the woods, lining the borders with irises and lily-slippers.”⁴⁶ Also, “he loved antiques, and Sunday afternoon drives with his wife and two daughters often included visits to antique shops in the Boston area.”⁴⁷

In addition to home renovations and tree planting, it seems “the little farm” included some pet dogs, chickens, pigs, and possibly a pony. (Figs. 7a and b) In a 1920 letter written by artist and civil rights activist Edwin Augustus “Teddy” Harleston (1882-1931),⁴⁸ a long-time friend of Mrs. Ada Hinton and her family, he described the Hintons as “most likeable people with two children, living in the country on a little farm which she [Ada] assists with pigs and all that.”⁴⁹ Harleston had graduated from Atlanta University about the same time as Mrs. Hin-



Figure 6. Hinton home, 154 Dedham Street, Canton, Massachusetts, summer 1924. Courtesy Canton Historical Society.

ton and later studied art in Boston. In another letter that Ada wrote to Teddy, she indicated that after some neighbor playmates had moved away, Anne's "chief interest now is growing to be big enough to have a pony."

One of the Hinton family's closest friends was prominent Black physician and Framingham, Massachusetts resident Solomon Carter Fuller (1872-1953).⁵⁰ Dr. Fuller had obtained his MD degree from Boston University Medical School in 1897 and interned with Dr. Alois Alzheimer in Munich, Germany. With his work as a pathologist, psychiatrist, and neurologist, first at Westborough Hospital and then as professor at Boston University with focus on Alzheimer's disease, "the results of Fuller's research helped to confirm that the condition known as Alzheimer's was not the result of insanity but rather a physical disease of the brain."^{51,52} It was reported that the Hinton and Fuller families visited each other's homes often and shared interest in gardening.⁵³ The Fullers had three sons and the Hintons, two daughters.

Several years before children were born, it is known that Dr. Hinton took at least one trip to London in the spring of 1914 for a meeting or other purpose. Bastian reported, "When she was six, Jane's parents sent her and her [10-year-old] sister [Anne] to school in several countries in Europe to ensure that they would have the best education available to black students at the time."^{54,55,56} In a letter their mother wrote to Harleston in 1925, Mrs. Hinton noted, "*the fact that Ann and Jane are going to France has made us so sentimental; so, sort of tense. I cannot bear*

them out of my sight, etc...and I am checking the days before the Fourth of July, when they sailed from New York." She later wrote, "*We get such wonderfully encouraging letters from and about the children. They write in French altogether now.*"⁵⁷ Having spent 1925 to 1928 in England, Switzerland, Germany, Italy, and France for study and education at unknown schools, the girls returned to the US in 1928.⁵⁸

Jane Hinton first attended Canton High School from September 1928 to June 1931. Then in September 1932, at age 13, for any number of reasons, she transferred to the College Preparatory Course at Montpelier Seminary in Montpelier, Vermont, a small, private co-educational school. While there, she took French, Latin, chemistry, mathematics, and other courses and participated in the school's orchestra. Several years later, in a class of 38, she graduated with honors on June 3, 1935.^{59,60,61} Founded as Newbury College in 1832, the school was relocated in 1866 by the Vermont Methodist Conference, changing its name to the Montpelier Seminary. It became Vermont Junior College in 1936 and simply Vermont College in the 1950s before merging into Norwich University in 1972 and ultimately uniting in 2001.

Enrolling at Simmons College, a small woman's liberal arts college in Boston, Massachusetts [now Simmons University], Jane, known as "Janie," majored in General Science earning a BS degree in 1939. (Fig. 8) She took courses in biology, chemistry, and physics, as well as microscopic anatomy and embryology at Tufts Medical School.⁶² During all 4 years, she



Figures 7a,b. Jane and Anne Hinton with their dog and near a coop with a flock of chickens in the snow at 154 Dedham Street, Canton, Mass., 1920. Photos courtesy Collection of the Canton Historical Society. These snapshots may have been taken by Elise Harleston, one of the first female African American photographers on a visit to the Hintons.



Figure 8. Jane Hinton, Simmons College senior class photo 1939.

Simmons College Microcosm [yearbook] 1939, p. 77. Internet Archive, <https://archive.org/details/microcosm1939simm>

was a member of the Ellen Richards Club, which was composed of students interested in science and chemistry in particular. Notes in her class yearbook stated, “test tubes on street cars...science...good natured...merry.”⁶³

Interestingly, her father, Dr. William A. Hinton, was on the Simmons College faculty as “Lecturer on Wassermann Technique” for the course on “Hospital Laboratory Methods” in the Department of Biology and Health from 1920-1921 through

1952-1953.⁶⁴ The instruction he gave on the Wassermann technique was held at the State Laboratory.

Jane had a smart older sister, Anne Hinton Jones (1916-1990). After “doing four year’s work in three” at Canton High School as the “youngest and most brilliant member” of the class of 1931,⁶⁵ Anne graduated from Simmons College in 1935 with a major in General Science.⁶⁶ She married Charles Jones and had several children. When the sisters’ father died in 1959, Anne was noted to be a psychiatric social worker living in New York City.⁶⁷ Mrs. Jones passed away on August 6, 1990, at Brooklyn, New York.

Laboratory Work

Jane held several short-term positions in medical laboratories in Boston, probably as a component of her undergraduate studies at Simmons College.⁶⁸ For example, in the summer of 1937, she learned techniques and worked alongside her father, Dr. W.A. Hinton, in his laboratory at the Massachusetts State Wassermann Laboratory as a research technician doing routine serology.^{69,70}

Microbiology Research and Mueller-Hinton Agar

After graduating from Simmons College, Jane first took a position for about a year (June or September 1939 to October 1940) in the laboratory of the Boston Dispensary.⁹⁵ Founded in 1796, the Dispensary established the first clinic for the treatment of syphilis in 1873.⁹⁶ Her father had been Director of its Laboratory Department since 1915, before it became the main teaching hospital for Tufts University School of Medicine in 1929, later called the Tufts-New England Medical Center.

From October 1940 to June 1941, she was a research assistant to bacteriologist and pathologist John Howard Mueller, PhD (1891-1954), who was chair of Harvard Medical School’s Department of Bacteriology and Immunology. Orig-

inally intended as an artificial medium to isolate and cultivate growth of the pathogenic *Neisseria* group, which includes *Neisseria gonorrhoeae* and *Neisseria meningitidis*, the bacteria that cause gonorrhea and meningococcal meningitis, Mueller and Hinton co-developed the Mueller-Hinton Agar.^{97,98} Their work was reported in a paper appearing in the *Proceedings of the Society for Experimental Biology and Medicine* in 1941 titled, “A protein-free medium for primary isolation of the gonococcus and meningococcus.”⁹⁹

This non-selective and non-differential agar enabled a wide range of bacteria to thrive. With the inclusion of starch in the mixture, toxins released by the pathogen are absorbed and therefore do not affect antibiotic susceptibility testing.¹⁰⁰ Moreover, being loose, the agar allowed antibiotics placed on it to diffuse or seep in, allowing tests to be conducted accurately. As a result, this rich culture medium became one of the standard laboratory methods used to test for determining bacterial resistance to antibiotics, and it remains in routine use today.

Given contemporary concern for abuse, misuse, and resistance to antibiotics, this 80-year-old Mueller-Hinton agar/broth has stood the test of time, leading to the development of local, national, and international antimicrobial resistance surveillance systems for both human and veterinary applications.^{101,102,103} As such, it is praised as not only “the most emblematic microbiological growth medium used to measure plasma concentration of antimicrobial drugs (AMDs), but also used for antibiotic susceptibility testing and minimum inhibiting concentration (MIC) determination.”¹⁰⁴ Commercial preparations of the Mueller-Hinton agar and broth can be purchased from suppliers.



Figure 11. Jane Hinton (upper row, 2nd from left) was one of the technicians on an expedition to Nova Scotia, Canadian in 1941. Source: *Boston Globe*. 1941 Jan 27, p. 17.

W.A. Hinton and Ada Hinton



Figure 9. William Augustus Hinton, MD (15 Dec 1883- 10 Aug 1959). Source: Harvard Medical School, <https://meded.hms.harvard.edu/william-augustus-hinton> <https://collections.countway.harvard.edu/onview/items/show/18162>



Figure 10. Ada Hawes Hinton (1878-1958). Source: OBJ Datatream

Jane's father, William Augustus Hinton, MD (1883-1959), was Harvard University's first Black professor and a remarkable scientist in the fields of clinical/medical microbiology, infectious diseases, and public health. (Fig. 9) Aside from reportedly encountering obstacles inherent in racism at the time, some have considered him to be "one of the preeminent microbiologists and immunologists of the Twentieth Century."^{71,72,73}

Shortly after William was born in Chicago in 1883, his parents, Augustus Hinton and Maria (nee Clark) Hinton, who were emancipated slaves from North Carolina, moved to Kansas City, Kansas. Freed after the Civil War, Augustus had become a farmer and railroad porter.⁷⁴ Augustus and Maria wanted their son to have a good education, and William first attended the University of Kansas in 1900 but dropped out after 2 years because of being unable to pay tuition. Although earning enough several years later to re-enroll, he decided to transfer to Harvard College in 1902 on a scholarship. After graduation

in 1905, William taught biology, chemistry, and physics for 3 years at colleges in Oklahoma and Tennessee.

While at the Colored Agricultural and Normal University of Oklahoma (now Langston University), the only historically Black land-grant college in Oklahoma, William met Ada Hawes (1888-1958) (Fig. 10), who was teaching Latin

at the school. Born in Macon, Georgia, Ada had graduated in 1901 from Atlanta University (now Clark Atlanta University), a private Methodist historically Black research university in Atlanta, Georgia, and earned a master's degree in mathematics from Chicago University in 1906. After marrying in September 1909, William and Ada relocated to Boston, where William matriculated at Harvard Medical School that same year.⁷⁵

Dr. W.A. Hinton's Research on Syphilis

In 1912, Dr. W.A. Hinton became the first African American graduate of Harvard Medical School. While studying, he had been awarded the Hayden scholarship that was reserved for African American students, but he declined because he wanted to be judged on merit rather than race. He did accept a Wigglesworth Scholarship intended for a "needy and deserving student."⁷⁵ Despite graduating cum laude, he was unable to obtain a surgical residency or internship. Instead, Dr. W.A. Hinton "took a position teaching serologic techniques at the Wassermann Laboratory [the Massachusetts State Laboratory for communicable diseases at Harvard Medical School] and became familiar with serologic methods for laboratory diagnosis of syphilis."⁷⁷ He was also a part-time volunteer assistant in the Department of Pathology at Massachusetts General Hospital and for 3 years, performed autopsies on all persons suspected of having syphilis. "The proximity of the Wassermann Laboratory to Peter Bent Brigham Hospital (established in 1913) further facilitated a career of expertise for Dr. Hinton relative to syphilis serology," enabling him to correlate clinical presentation of patients with laboratory data obtained from the complement fixation-based Wassermann test in use since 1906.

During his time at the Wassermann Laboratory, Dr. Hinton developed a new serologic test for syphilis, known as the Hinton test, which almost eliminated false-positives and avoided the long series of painful treatments. In 1927,⁷⁸ he published a study in which the addition of glycerol to non-complement fixation assays for syphilis, such as the Khan test, enhanced the laboratory diagnosis of the disease. "The Hinton test performed well in comparative evaluations of sensitivity and specificity that were presented in the late 1920s and 1930s." He published two additional modifications before the Hinton assay test was endorsed by the US Public Health Service in 1934.⁷⁹ This assay became the gold standard for laboratory diagnosis of syphilis until it was replaced after World War II.

In 1936, Dr. Hinton became the first African American to author a published medical textbook. It was entitled, *Syphilis and Its Treatment*, and encompassed his 20 years of research in the laboratory hospital clinic.⁸⁰ During 2 years of

writing, Mrs. Hinton “was as much a driving force behind the book as her husband” in providing moral support and carrying on daily household activities.⁸¹

When the Wassermann Laboratory was transferred from Harvard Medical School to the Massachusetts Department of Public Health in 1915, Hinton was appointed Assistant Director of the Division of Biologic Laboratories and Chief of the Wassermann Laboratory, a position he held for 38 years.⁸² The serology laboratory at the Massachusetts Department of Public Health’s Laboratory Institute building was named in his honor in 2008.

At the unveiling of his oil portrait replacing a photograph at the Harvard Medical School in 2019, [its painter Stephen] Coit described how he spent many hours researching Hinton’s life, attempting to find photographs of a man who scrupulously avoided having them taken. In the end, Coit said, “he chose to portray the scientist in a microbiology lab.... in the 1920s. A female was included in the portrait, Coit said, because Hinton also worked to break down barriers for women, teaching at Simmons College and establishing a laboratory technicians training school open only to women—the first of its kind in the nation.”⁸³

Dr. W.A. Hinton’s Laboratory Technology Teaching

In addition to his laboratory work, Dr. W.A. Hinton taught courses in preventive medicine and hygiene as well as bacteriology and immunology at Harvard School of Public Health and Harvard Medical School from 1923 for nearly 30 years. Munson noted,⁸⁴ “Dr. Hinton’s pedagogic contributions were not limited to Harvard Medical School. He taught courses at the Tufts College Schools of Medicine and Dentistry. Dr. Hinton also taught at the all-female Simmons College (now Simmons University) in Boston. He further established a laboratory technician program in 1931 at Tufts College that was open only to women, thus, Hinton was a pioneer in creating countless opportunities for women in laboratory medicine.” An obituary in *The Boston Globe* credits him as having “founded a school for medical laboratory technicians at the Boston Dispensary” [a unit of Tufts-New England Medical Center since 1929].⁸⁵

Recognized for being extremely patient, Dr. Johnson-Thompson wrote, “he was known for working closely with laboratory aides to ensure their understanding of the laboratory research work. Additionally, he might have been one of the few to teach women in laboratory science. His concern in ensuring opportunities for women might have been related to the fact that he had two daughters.”⁸⁶

“In 1949, one year before academic retirement [her father, Dr. William A.], Hinton was made Clinical Professor of Bacteriology, the first black to be named to a professorial rank in Harvard’s [313-year] history.^{87,88} Dr. W.A. Hinton passed away 10 years later, on August 8, 1959.

Mrs. Hinton’s Social Work

Over the years in living and teaching school in Canton and raising two daughters, Mrs. Hinton “spent much time at Massachusetts General Hospital in the field of medical social work.”⁸⁹ She was vice president of the Boston Housing Foundation and president of the Community Fund in Canton and the local Nursing Association.⁹⁰ She also served on the board of directors and was vice president of the Home for Aged Colored Women in Boston, “a charitable organization founded in 1860 to provide services to aged and indigent African-American women” in the city.⁹¹

In November 1920, while Mrs. Hinton was serving on the Committee for the Future of the Home, the Committee had suggested closing the home in favor of outside aid. Mrs. Hinton was also a member when the subsequent 1944 Committee sold the original house at 23 Hancock Street. She “had long wanted to expand the work of the Home to serve more women. She has a vision which would emerge over the next few years.”⁹²

As of April 1949, “Ada Hinton’s vision clarified following successful community service grants” and cooperative work with the Commonwealth Housing Foundation.⁹³ A decade later, in late summer 1960, 24 apartments at 85 Dale Street in Roxbury were completed across from Hyde Park. They were named the Ada Hinton Apartments “in honor of Ada Hinton whose tireless efforts are principally responsible for the project.”⁹⁴ “Indeed the completion of the Ada B. Hinton Apartments would be greeted with great fanfare throughout the country as a unique and promising way to fund better housing for the elderly.” It was a model for private efforts to develop low-cost housing for seniors.

After the Home ceased to operate in the 1950s and 1960s, the Board of Trustees were engaged in a range of activities and programs to support low-cost housing and health care for elderly Black people before being succeeded by the Grimes-King Foundation for the Elderly in November 1969.

Medical Expedition to Nova Scotia

On January 27, 1941, while working for Dr. Mueller, Jane Hinton left Boston Airport with six doctors accompanied by their assistants and technicians from the Harvard Medical School on a scientific expedition to Halifax, Nova Scotia, Canada.^{105,106,107,108} (Fig. 11) The purpose of the month-long trip was “to assist health authorities in Halifax in combating three [communicable] diseases [in army troops stationed there] which have become so widespread in that region as to be considered in the epidemic stages. A study will be made of scarlet fever, diphtheria and meningitis.” Halifax served as a major East Coast port for Canadian troops dispatched to Europe in World War II between 1939 and 1945.

When grant funding ended in June 1941, Jane volunteered at Boston City Hospital from July through September, performing endocrinology tests directed by pathologist Dr. Fredric Parker, Jr.¹⁰⁹ Additionally, for the June 1941 to June 1942 academic year, she served as a teaching assistant in anatomy helping Professor Benjamin Spector at Tufts University Medical School prepare histology sections for class use. After being unemployed for a few months (June to October 1942), Jane joined the war effort as a civilian government employee.

World War II Service in Arizona

During World War II from October 19, 1942, to June 1945,*

Jane Hinton spent 3 years as a medical technician for the US War Department in a laboratory at Fort Huachuca Army Station Hospital in Arizona.^{110,111,112} She was appointed first as Assistant Medical Technician (General), SP-4, and later promoted to Medical Technician (General), SP-5 on August 16, 1944, with a salary increase.¹¹³

On her civil service applications, Dr. Hinton listed serving at Fort Huachuca from October 1942 to June 1945. Yet, Hinton’s official personnel folder specified an indefinite appointment service date as November 19, 1942, with separation not being effective until December 17, 1945. An “emergency” appointment was noted as October 19, 1942, for a total of 3 years, 1 month, and 29 days. The ending period from June to December remains unexplained, but she would have had to leave Fort Huachuca to attend veterinary college in fall of 1945.

Under the direction of Major Dr. Julian Owen Blache,¹¹⁴ the laboratory was one of the busiest places in the hospital, averaging 10,000 cultures and 100 water samples a month for a variety of lab tests, protecting the personal health and promoting well-being of those living at the Fort. “Vital tests that protect health of Fort Huachucans give the laboratory its ‘raison d’etre.’ Tests for infectious diseases, tests for food products and water, blood tests, tests for human secretion, and the microscopic study of tissues removed at operations and

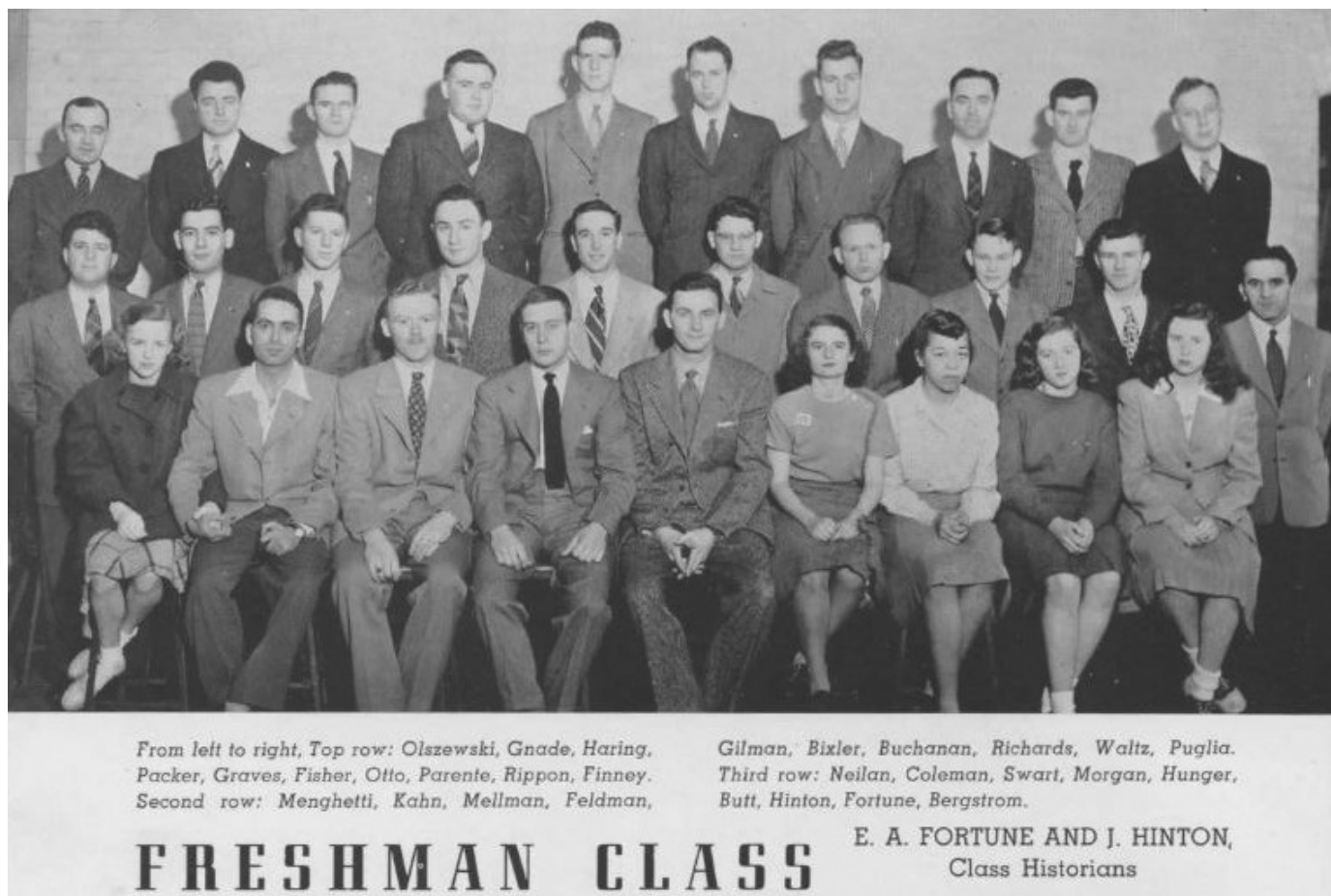


Figure 12. Freshman Class, University of Pennsylvania, 1946. From: *1946 Scalpel*, p. 84. <https://archives.upenn.edu/digitized-resources/docs-pubs/scalpel/scalpel-1946>

autopsies are the most important analyses handled by the laboratory's staff of highly trained and capable technicians."¹¹⁵

In addition to the doctors and other staff, Jane Hinton was one of the four young women technicians from across the country who were members of the American Society of Technologists and did "their share as civilians in the war effort."¹¹⁶ The Fort newspaper, *The Apache Sentinel*, noted in October 1943, "there's plenty of talent and no small amount of pulchritude among feminine civilians employed in the Station Hospital No. 1 laboratory. The American Society of Technologists (lab technicians to the uninitiated) claims the membership of this attractive and brainy quartette."¹¹⁷

Located 15 miles from the Mexican border in the southeastern corner of Arizona at the base of the Huachuca Mountains, USAG Fort Huachuca had been established in 1877 for border security purposes and was headquarters for combating the Chiracahua Apache threat of Geronimo in 1886. For about 20 years from 1913, the fort was the base for the "Buffalo Soldiers" of the 10th Cavalry Regiment, an all-Black regiment of the US Army. Before World War II, the Black 25th Infantry Regiment was based at Fort Huachuca and during the war, it served as the home base for training of the 92nd and 93rd Infantry Divisions composed of African American troops. In war years, the Fort's population numbered about 25,000 enlisted soldiers and officers, along with hundreds from the Women's Army Corps.

As early as 1877 when the garrison was founded, a dispensary had been established. "The fourth hospital opened [at Fort Huachuca] in May 1941. This hospital consisted of two buildings (Station Hospital 1 and 2). Because segregation was still in effect, the larger hospital building, Station Hospital 1, was designated as the largest of only two 'all black' hospitals in the United States. At its peak, the Station Hospitals on Fort Huachuca operated with 1,135 beds. In 1944, the facility was designated a "regional hospital" and was later selected as a testing location for the 'new drug' penicillin."¹¹⁸

Earning a Veterinary Degree

At some point before the war ended, Jane Hinton decided to pursue advanced studies in veterinary medicine and enrolled at the School of Veterinary Medicine at the University of Pennsylvania in Philadelphia in fall of 1945.

At matriculation, 5 women had initially joined Hinton's class, while only 4 completed the full course of study, along with 24 men 4 years later. (Fig. 12) As a result, unlike most of the earlier female veterinary students who had no female classmates, Jane was accompanied by: Norma Irene Bergstrom from Quakertown, Pennsylvania, who was sophomore class historian; Elinor Butt from Paoli, Pennsylvania, who served as freshman year secretary-treasurer; and Elizabeth Anne "Betty" Fortune from Waltham, Massachusetts. Both from the Boston vicinity, Hinton and Fortune were co-class historians in their freshman year,¹¹⁹ and Jane served as secretary of her senior year graduating class.¹²⁰ (Fig. 13)

In the freshman class history, Hinton wrote,¹²¹ "*The class of 27 members is comprised of 22 men and 5 women whose average age is 25, a considerable degree of variation. This might possibly be considered a handicap but will provide of great value due to the varied experiences of so mixed a group...Eleven members of the class possess college degrees and a large majority have had valuable practical experience with animals.*"

She further said, "*The first term of our Veterinary School career meant for many a return to educational activities after interims of varied occurrences. Getting back to the 'grind' was our greatest achievement, but having gained a foothold, we can enter the second term looking forward to many more interesting subjects and we feel we are getting closer to our long-awaited goal.*"

The statement about Hinton in the 1949 *Scalpel* yearbook,¹²² indicated that she had "...varied experiences, from the Laboratories at Harvard, to the Army, as well as assisting a practitioner, [and] have given her a good start." Moreover, "*But with the good scholastic record she has achieved here at school, we know that she will be successful in general practice.*"

Interestingly, Hinton appeared in a senior yearbook photo under "Clinics" experiences. (Fig. 14) While the context and humor are lost on us today, the caption read: "When [student



Figure 13. Class of 1949 Officers; Robert L. Michel, Treasurer, and Jane Hinton, Secretary. Source: *The 1949 Scalpel*, p. 40. Penn Archives and Records Center, <https://archives.upenn.edu/digitized-resources/docs-pubs/scalpel/scalpel-1949>



Figure 14. Hinton (center) compounding pharmaceutical preparation in Clinics. From: *The 1949 Scalpel*, p. 39.

Ira H.] Kahan says, ‘yes,’ and Hinton says, ‘no,’ look out Dr. Lentz, something is about to blow.”¹²³ Dr. Frank E. Lentz was professor of materia medica and pharmacy.

Despite mention in her senior statement, background information on her past involvement in “assisting a practitioner” is unavailable but would lead one to believe that such an experience likely had an influence on or provided support for her decision to pursue veterinary medicine. While a couple biographical summaries have indicated she had “a variety of pets,” little is known other than that her family had a dog, chickens, and pigs when she was growing up.

When she received her VMD degree on June 15, 1949, at age 30, Dr. Hinton became one of the first two African American women to become veterinarians in the US.¹²⁴ (Fig. 15)

Private Practice

After studying in Philadelphia and being licensed to practice (Massachusetts License No. 1087), Dr. Hinton returned to her hometown area of Canton, Massachusetts, where she worked as a small animal practitioner. From August 1949 to June 1955, she was associated with the private practice of Abram [or Abraham] Temple Bowen, VMD (1897-1979) and S. Robert Orcutt, VMD (UP '45) at 598 Worcester Road, Framingham, Massachusetts.^{125,126,127} (Fig. 16) Born in New York City and later from Montvale, New Jersey, Dr. Bowen had attended the Massachusetts Agricultural College at Amherst (later known as the University of Massachusetts at Amherst) before receiving his VMD degree in 1930 from the University of Pennsylvania School of Veterinary Medicine.¹²⁸ He had been class president his sophomore year.

During her years as an assistant veterinarian there, Dr. Hinton was involved in “all duties and techniques associated with small animal practice.” In resigning, she explained that there was “no further chance of advancement” and “no chance for further salary raise” as she “had reached top salary available in the small animal practice.”¹²⁹

For the next year until June 1956, she was self-employed with variable hours doing “relief work for practices in the local area.” In serving 5 veterinarians in the vicinity of central Massachusetts, she provided relief services when they went on vacation or took leaves. Several of the practitioners might have included Drs. George Abbott in Worcester and Edward B. Slade in Framingham.¹³⁰

Laboratory Research

Likely desiring regular full-time employment and considering getting back into laboratory work, Dr. Hinton took a position as Senior Research Technician at the Biological Testing Laboratory on Harvard Street in Worcester under Marcus Mason, DVM, in June 1956.¹³¹ This came with the “possibility of having [her] own project at the [Worcester?] Foundation.”

For nearly 18 months, she performed bioassay procedures and tabulated statistics for interpretation of test results in addition to supervising technicians. Having majored in biochemistry (premedical) and chemistry at Simmons College in 1939, she

took an advanced biochemistry course at Clark University in 1957 to update her knowledge.

Then, on November 21, 1957, she joined the Worcester Foundation for Experimental Biology (WFEB) (now, Worcester Foundation for Biomedical Research) in Shrewsbury, Massachusetts, as a Laboratory Research Assistant/Technician. She worked under Dr. Gregory Pincus, known for developing the combined oral contraceptive pill. At WFEB, Dr. Hinton was responsible for performing bioassay procedures on mice, rats, and rabbits and doing microscopic examination of Pap smears for cancer diagnosis.

This work lasted until December 1, 1958, when a change in project assignment required constant use of a microscope. Doing such intensive work became impossible for her because of her weak eyesight, and she was “asked to leave.” In severing employment from the Foundation, she noted,¹³² “...my eyesight would not permit me to do continuous microscopic work. Since this was the only work Dr. Pincus wanted me to do, he felt it would be better [for me] to get another type of work. He assured me however (by letter) that my work had been completely satisfactory and he would gladly recommend me for any position for which I might apply.”



Figure 15. Jane Hinton, VMD, senior class photo, 1949.

Source: *Scalpel 1949*, p. 47 University of Pennsylvania Archives and Records Center, <https://archives.upenn.edu/digitized-resources/docs-pubs/scalpel/scalpel-1949> Also, Wikimedia Commons, https://commons.wikimedia.org/wiki/File:Jane_Hinton.jpg

Hinton Jane veterinarian A Temple Bowen r100 Prospect

Figure 16. Manning’s Framingham and Ashland Directory, October 1950. Springfield, MA: H.A Manning, 1950; p. 108. Also, listed in 1953 Directory, p. 109. Source: Ancestry.com

Veterinary Medical Inspector

When the Bureau of Animal Industry was disbanded in the early 1950s, regulatory responsibilities for controlling outbreaks of animal disease and inspecting the safety and wholesomeness of meat, milk and, poultry products were transferred to the USDA Animal Marketing Services in 1953, that later became Consumer and Marketing Services. Regional service and field offices, duty stations, and inspectors were dispersed at various locations across the country.

Given her veterinary background and laboratory experience, Dr. Hinton submitted a civil service application in early 1959 for federal employment as a USDA veterinary inspector. She specified a preference for assignments within 25 miles of Framingham, Massachusetts, midway between Boston and Worcester. Interestingly, William T. Fuller, the son of an old family research physician friend from Boston, served as a contact in case of emergency.¹³³

It is not known why Dr. Hinton specialized as a Veterinary Poultry Inspector during much of her animal health career. While there may be any number of reasons, she possibly had an affection for chickens from childhood when her family raised them in Canton, Massachusetts. In related capacities, “she participated in research and treatment of many serious outbreaks of disease that affected American livestock [including poultry] through the ’60s, ’70s, and ’80s.”¹³⁴

Dr. Hinton began her career-conditional appointment as a Veterinary Poultry Inspector, GS-9, with the USDA Agricultural Marketing Service, effective March 9, 1959. Her duty station was listed as the Philadelphia office, but was shortly changed to Boston on April 24, 1959.^{135,136,137,138} Her duties included conducting postmortem examinations of entire carcasses, including all parts, organs, and tissues, to ascertain whether disease or abnormalities were present. Supervising 3 to 4 technicians, she also oversaw sanitations, labeling, and preparation of reports. Several years later, Dr. Hinton’s status was converted to a permanent career appointment as Veterinarian (Poultry Inspector), GS-11, effective April 23, 1962. (Fig. 17)

As requested, most of her inspection activity focused on central Massachusetts, particularly in Leominster or Sterling in the mid- to late 1960s.¹³⁹ Yet, she was posted to Yarmouth, Maine, for most of 1961 and early 1962 out of the Philadelphia office¹⁴⁰ and was also reassigned at Troy, New York, for some time in 1965 and 1966.¹⁴¹ By that time, the Agricultural Marketing Services had been renamed as the Consumer and Marketing Service, Poultry Division, Inspection Branch.

From October 1968, much of her time as a Veterinary Poultry Inspector was spent out of the Sterling duty station associated with the Pinecrest Duck Farm in Sterling, Massachusetts. Founded in 1921 by Donald Hayes and in business until it closed in the early 1990s, this family owned, 190-acre duck farm had 50 to 60 employees at any one time who “loved working with the ducks.” Rotating two batches averaging 3,000 laying ducks, the farm housed approximately 100,000



Figure 17. USDA poultry inspection stamp. (P-42 is a poultry processing plant number). USDA Food Safety and Inspection Service. <https://www.fsis.usda.gov/food-safety/safe-food-handling-and-preparation/food-safety-basics/how-find-usda-establishment>

ducks at any one time.¹⁴² The year-around enterprise “had all of the operational equipment on site necessary to breed, raise, kill, clean, freeze, and sell ducklings. This included selling the feathers to sofa and pillow manufacturers and the duck feet to international markets where they were considered a delicacy.”¹⁴³

While still based in Sterling, Dr. Hinton resigned from her position as Veterinary Medical Officer (GS-11), effective April 18, 1970, after about 10 years with Worcester Circuit duty station of the Consumer Protection Regional Office in Consumer & Marketing Services.¹⁴⁴ Her reason for leaving was cited as “skills not sufficiently utilized.” On April 6th, she wrote,¹⁴⁵

“I can no longer justify to my conscience the necessity for my position. The limited judgment I am allowed to make could just as well be made by non-veterinary personnel. The shackling of the veterinarian’s responsibilities and initiative can only further demean his role. I see no future in this atmosphere so am leaving to seek a position which I hope will restore some sense of professional dignity and give me a chance to perform at a level commensurate with my training.”

In April 1970, Dr. Hinton took a position as Public Health Veterinarian with the Massachusetts Department of Public Health, Food and Drug Administration. Supervising 4 to 5 other inspectors, she was involved in “finalling” slaughtering and inspection procedures at various plants in the New England and Boston areas. In this capacity, Dr. Hinton was the inspector in charge of several poultry plants.¹⁴⁶

When leaving the USDA 5 years earlier, she felt she “was promised a more responsible position in the [Massachusetts] state inspection service.” However, such was not to be. Dr. Hinton resigned this state position in November, 1975, citing “absolutely no chance for advancement.”

Returning to federal service on November 9, 1975, Dr. Hinton was reinstated in the USDA Animal Plant Health Inspection Service, Veterinary Services, as a Veterinary Medical Officer, GS-11, in the New England region.¹⁴⁷ At that time, it was noted that “Dr. Hinton must not engage in the private practice of veterinary medicine while on the rolls of this service.” From then on, her duty station remained listed as Sudbury, Massachusetts.

USDA veterinary medical officers were involved in disease epidemiology, testing, procedures for disposal of infected or exposed animals and birds, and inspection for disease and humane treatment of animals in animal care, slaughter plants, and stockyards involved in both interstate and intrastate movement. They also obtained compliance and/or documentation and reported non-compliance. Other duties included being a liaison for public relations and supervising animal health technicians.

As of February 13, 1977, while continuing to be based at Sudbury,¹⁴⁸ Dr. Hinton was promoted to GS-12 grade level. Several years later, she received a quality increase notice for outstanding performance in October 1979.¹⁴⁹

During her later years with the USDA, Dr. Hinton was temporarily detailed to the US-Canadian border port at Houlton, Maine, in August 1982 and was commended for her personal contributions on a task force mission to combat and eradicate an outbreak of avian influenza in Virginia in April 1985.

When she officially separated (retired) from the USDA on September 27, 1986, Dr. Hinton had accumulated a total of 25 years, 1 month, and 28 days of federal service.¹⁵⁰

During her professional career, Dr. Hinton was a member of the American Veterinary Medical Association, Massachusetts Veterinary Association, Woman's Veterinary Medical Association, and the American Civil Liberties Union.

In addition, she became a member of the National Association of Federal Veterinarians, a constituent body of the American Veterinary Medical Association (AVMA), in 1977.¹⁵¹ This organization had been established in 1918 by veterinarians in the US Bureau of Animal Industry. Its purposes were to promote the profession, improve professional proficiency in federal service, support and improve the material interests of its members, acquaint the public with the activities of federal veterinarians, and cooperate with other veterinary and sanitary organizations, such as the AVMA. All veterinarians employed by the federal government and recommended by a member in good standing were eligible for membership.

Later Retirement Years

Dr. Hinton passed away on April 9, 2003 [at Newton, Massachusetts], a few weeks before her 84th birthday.^{152,153,154,155} A memorial service was held on June 14, 2003, at Pitman Chapel, Forest Hills Crematorium in Jamaica Plain, Massachusetts.¹⁵⁶ She never married.

In remembering Dr. Jane Hinton, Carolina de Busto remarked,¹⁵⁷ "From shattering racial barriers to developing crucial advances in biology, Dr. Jane Hinton literally changed the world, Rankin says. *[Her] contribution to clinical microbiology, medicine, veterinary medicine and public health is enormous.*"

About Dr. Jane Hinton's life,¹⁵⁸ another observer wrote that her "work has become central to basic microbiology and points to the importance of methodical, logical science. And she succeeding in this field in an age when her ability to pursue it to the utmost was severely limited.

It is important that we celebrate her achievements so that we finally see the edifice of scientific knowledge being built by all of the peoples who contributed. So that when future generations of scientists are trained, they will know that whether they are brown or black, male, female or neither, they too, will be given their due."

Association for Women Veterinarians

In addition to their personal achievements in veterinary medicine, Drs. Webb and Hinton were the first African American members of the Women's Veterinary Medical Association.¹⁵⁹ About the time the Women's Veterinary Association was founded in 1947, there were fewer than 100 women veterinarians in the US and none were of African descent.

When the organization became the Women's Veterinary Medical Association in 1949 at the AVMA's suggestion, Dr. Alfreda Johnson Webb (TUS '49) became the first Black member, joining after graduation, followed by Dr. Jane Hinton (UP '49). Both women remained charter members. Honored at the AVMA meeting in Atlanta in 1978, Dr. Hinton was among the charter members who received honor roll status and thus paid no dues.¹⁶⁰ This organization, later known as the Association for Women Veterinarians, served as a "source of encouragement and, at times, a force for change" over its 66 years of existence.

Epilogue

Drs. Webb and Hinton are unable to tell their life stories in their own words. We only know what they did, rather than understanding how they might have described their experiences or what they may have felt regarding satisfaction gained or obstacles encountered along the way.

Without a doubt, Drs. Alfreda Johnson Webb and Jane Hinton are notable pioneers for being first in a number of categories and thus deserving of major recognition. They both achieved considerable success in their chosen career paths in different regions of the country. Their legacies continue to have a lasting effect on medicine and education as their life stories provide inspiration and a foundation for the additional women veterinarians and all African American veterinarians who follow them.

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