Benjamin Graves Brown, H1865
William J. Walker Professor of Mathematics

BENJAMIN GRAVES BROWN
1837-1903
WALKER PROFESSOR OF MATHEMATICS - FOR MORE THAN FORTY YEARS A
TEACHER OF MATHEMATICS IN TUFTS COLLEGE - A MAN OF VARIOUS GIFTS
- AN INSPIRING INSTRUCTOR OF YOUTH - A TRUE FRIEND A GENIAL
COMRADE A WISE COUNSELOR - A GOOD CITIZEN

Thus reads a bronze tablet on the west wall of Goddard Chapel.

Benjamin Graves Brown held the first endowed chair at Tufts University from 1865 to
1903. He was also the father of a dynasty of Tufts alumni, among them the first
woman graduate of Tufts. He is commemorated by this plaque in Goddard Chapel, by
the Benjamin Brown Scholarship, and by the Brown School in Somerville.

Early Days

"Bennie" Brown was born in Marblehead on February 22, 1837. He attended public
schools there and later spent a year at the Marblehead Academy. He decided early on
that he wanted to go to college. It was fortunate that Latin, Greek and several other
subjects required for college admission had just been introduced into the school
curriculum. This enabled him to enter Harvard College in 1854. At Harvard he was a
member of the Zeta Psi Fraternity as well as the Sophomore Debating Society The Institution of 1770, as whose librarian he served during his junior year. He obtained an AB in 1858.

That fall he became principal of the Marblehead Academy. After three years he resigned in order to study medicine, but he changed plans when Tufts hired him as tutor in mathematics. He joined the faculty in 1861 as tutor to freshmen and sophomores in mathematics, and to juniors and seniors in mechanics and physics. During his first two years he also studied at the Lawrence Scientific School in Cambridge. In 1864 his three-year appointment as instructor came to an end.

The Walker Professorship

William Johnson Walker (March 15, 1789-April 2, 1865) was born in Charlestown and attended school there until transferring to Phillips Academy. He graduated from Harvard in 1810, having been interested mainly in Latin and geometry. He studied medicine in Charlestown and later in Medford, under John Brooks, M.D., who was to be governor of Massachusetts later. In 1813 he graduated from Massachusetts Medical College and briefly moved to Paris, where foreign medical personnel was needed in the hospitals to replace doctors conscripted by Napoleon. After the Napoleon's abdication Walker went to London for six months, then returned to Charlestown, where he kept a private practice and consulted for Massachusetts General Hospital. After 30 years of medical practice he went to Boston (later to Newport) and became involved in manufacture and railroads, which earned him a large fortune rapidly. He was a strong supporter of college education and distributed a $200,000 donation to the Natural History Society of Boston, Tufts College, Amherst College, the Institute of Technology in Boston (MIT), and Williams College. (The first four of these also jointly inherited another $800,000.)

On March 29, 1861 he established the first ever endowed chair at Tufts University, the William J. Walker Professorship in Mathematics. (In fact, he altogether donated about $200,000.- to the endowment of Tufts. The income supported five scholarships in his honor, but the bulk of it provided for the Walker Professorship as well as a Walker Instructorship, endowed July 14, 1862 and now defunct). He had rather definite ideas about what was to be taught and how. He proposed to let "the pupil learn to name instantly, without conscious counting, the number of counters or other small objects thrown down by the instructor, in all cases where the number is less than 12." He advised "requiring the pupils to learn the multiplication-table to 20x20, instead of stopping at 12x12."

In 1864, at age 27, Benjamin Brown was elected to be the first Walker Professor of Mathematics. On July 5, 1865 the faculty voted to give him an honorary A.M., and
that year began his tenure as Walker Professor of Mathematics, a post he held until his death in 1903. He was also department chair until 1903. Later, the Walker Professorship was held by Frank George Wren (1908-1941), William Richard Ransom (1944-1954), William F. Reynolds (1970-1998), and Richard Weiss (from 2001).

**Work at Tufts and in Somerville**

From his promotion on, since the faculty numbered only about 6, Professor Brown was also entrusted with classes outside of mathematics: Physics and astronomy were the main added duty, but he also taught Latin and Greek for a while. This only changed in 1874 with the arrival of Amos Emerson Dolbear as Professor of Physics, a pioneer in telegraphy and telephony. Dolbear is commemorated by a plaque at the south entrance to Ballou Hall and by the Amos Emerson Dolbear Scholarships for students with outstanding promise in the field of electrical engineering and physics. He remained at Tufts until 1914.

For over 17 years between 1872 and 1894 Brown was also a member of the Somerville school board, and he always took an active interest in municipal affairs.

**The Brown School**

In 1900 Somerville built the *Benj. G. Brown School* on Willow and Kidder Avenues (near Ball Square, which is the intersection of Boston Avenue and Broadway) on whose facade his name is immortalized.

Actually, after the school board had voted to thus name the school and forwarded the recommendation to the board of aldermen, the aldermen voted to name it after mayor Proctor, who was about to retire. Proctor persuaded them to vote unanimously for naming the building after Brown, saying: "I believe that the recommendation of the school board is a wise one. Professor Brown has been for many years a prominent factor in educational matters. His 17 years service as a member of our school board is but a part of a distinguished career in his chosen line. He has long been one of our most respected citizens. The naming of this building in his honor would add credit to Somerville's reputation as a city which leads in school matters, and would also be a just tribute to the long and valued service of Professor Brown."
It is fitting that the Brown School is considered the best school in Somerville.

**Tributes**

On September 29, 1903 Benjamin Graves Brown died of heart disease at his summer home in Marblehead. It was said that he "spoke less frequently and less impulsively than others. His feelings were strong, but they were more completely under control of his judgement. On occasion, chiefly when he saw things taking what he thought a disastrous course, he interposed with careful, comprehensive, wise, sometimes eloquent speech, which generally determined the action of his associates."

He was said to have been "the most universally liked of all professors of his time". "In conducting his recitations, he liked to provoke discussion; he rejoiced in every suggestion of originality or independent thought from a student; he loved to lead his classes through an apparently interminable tangle, and then reveal the goal to them in a flash. There was always a twinkle of delight in his eye when some apt pupil thought he had discovered a flaw in the reasoning. In all his dealings with his classes, his manner was ever modest, quiet, unassuming; never stern or severe, but always firm and kindly...His popularity was not due to any peculiarities which we first learned to tolerate, then to admire; not any artificial graces of manner, nor to the frequent granting of favors. It was gained by his clear brain, his knowledge of men, his sterling manhood, and his thoroughgoing human quality." Although he required a great deal from his classes he was just and fair in his estimation of all work, always ready to "stretch out a helping hand to those who stumbled of the somewhat difficult mathematical roadway".

He was always young and the combination of grey hairs and a boyish eye, of mature judgement and a youthful spirit gave him an undefinable charm. He was praised for his loyalty to all that was honorable in the life of the historic community, of his college, and of all the institutions of society.

**The Brown Home**

Around 1866 Brown built a modest home at 38 Professors Row, adjacent to what is now the Provost's House. The house was variously known as the Brown House, Brown-Durkee House, or Durkee House. Around 1900 a sun porch was added to the southern and eastern sides, and a dormer was added to the northern slope of the roof later. Much later it was to be leased to Tufts by his descendants, becoming the faculty club in 1948 and housing the Experimental
College and the Department of Urban and Environmental Policy from 1964. It was demolished to make way for the Elizabeth van Huysen Mayer Campus Center, which opened in 1985.

Brown married Rosalia Glenton on February 12, 1863 (she died January 4, 1906 in the Brown house). Colleagues were always welcome in the cheerful home, "where there were books and one who knew them, where he discoursed freely, instructively, sometimes brilliantly, on many subjects." They spent their summers in the family home at Fort Sewall in Marblehead. They had two children.

Robert Calthrop Brown

Robert Calthrop Brown, A1888, E1894, G1919, was born June 1, 1866. He attended Somerville schools and received a Bachelor of Arts degree from Tufts in 1888. In 1894 he received the degree of Electrical Engineer, and in 1919 a Master of Arts. After a short period of preliminary training with the Somerville Electric Light Company he became the electrical engineer of the West End Street Railway in Boston, which was managed by Dr. Frederick Stark Pearson. This began an important symbiosis that lasted until Pearson's death. Pearson was considered the outstanding engineer during the pioneer days of the electric industry, but the range of his vision and activities had to be complemented by Robert Brown's daring and restraint as a practical engineer. The trustees of Tufts College recount an important episode:

In 1889 the West End Street Railway realized that a relatively large block of power must be had to take care of the expansion planned. Mr. Brown decided that two 500 kw generators were required and as this was an unheard-of capacity he went to Professor Hooper of Tufts for designs and specifications. Up to this time generators had been built with smooth cores on which the windings were laid and held on with binding wires. Professor Hooper's calculations indicated that in the capacity under consideration the old practice of winding armatures was not practical and in searching for an alternative method hit upon the slotted core. This took care of the difficult mechanical problems and designs were submitted to Mr. Brown with the statement that while the electrical characteristics were not accurately predictable the generator would operate.

We don't know the mental reactions of Mr. Brown when first studying these designs but he did satisfy himself that they were sound and that he recommended that they be
adopted and bids were asked from the three electrical manufacturers in position to quote. Two of them refused to consider the project but the Thompson Houston Company of Lynn agreed to build the machines without responsibility for successful operation. The importance of this decision has never been recognized; in fact we doubt if the story has hitherto been written. In any event the machines were eminently successful and pointed the way to the real development in large generator design.

Soon after, he went to take charge of the electrical work of the Brooklyn City Railroad for three years. In 1894 he went to Montreal as Electrical Engineer of the street railway. This evidently was a relatively easy assignment for a year later he moved on to Halifax where he designed and built the Halifax Tramway Light & Power Company and for a number of years operated the property as General Manager. In 1899 he went to Brazil as General Manager of the São Paulo Tramway Light & Power Company, but in 1902 he returned to become Electrical Engineer of the Toronto and Niagara River Power Company. In 1906 he was appointed Managing Director of the Mexican Tramways and subsequently had executive direction of many Mexican and South American power companies and of the Barcelona Power & Light Company in Spain.

He became a life trustee on December 10, 1912. In that capacity he worked vigorously to gather funds for the building of the Pearson Memorial Laboratory of Chemistry, which was dedicated June 16, 1923. He died October 30, 1937.

**Henrietta Noble Brown and Women at Tufts**

Henrietta Noble Brown, A1893,G1895,G1918, was born July 4, 1871 in the Brown house on Professors Row. She graduated from Somerville High School in 1889 and attended Boston University. While there, she was trying to gain admission to Tufts, which was a men's college only. One day in 1892 President Elmer H. Capen came by their home to bring good news: "Well, Henrietta, if you'd like to transfer from Boston University and complete your college work on the Hill there's no reason why you can't do so. It's just been voted to admit women."

Taking in women as students was an event long anticipated by Universalists (who had founded Tufts), but it was a controversial move even in the 1890s, and at the time *The Tuftonian* commented:
It seems to us that the young ladies have it entirely in their power to make future relations between the sexes pleasant and agreeable or crabbed and uncomfortable, as they will.

Seven years prior the faculty had shown little enthusiasm; of 13 recorded votes, only 3 were unreservedly in favor of coeducation. But President Capen had long worked to make coeducation a reality. In fact, already at the 1873 commencement President Miner had said "that the trustees had never taken a ground against coeducation, that the presence of women would not be disagreeable to faculty or students, but that the doors of the college were closed to women on account of the backward state of public opinion on the subject." Finally, in 1892 the trustees voted to open the college to women "on the same terms and conditions as men." In fact, at the same meeting the trustees had instituted a graduate school faculty that was to grant Ph.D.s in biology and chemistry. They had decided that the graduate programs should be open to either sex, and opening the college to women was almost an afterthought. In the spring of 1893 Albert Metcalf of Newton donated the funds to build the first women's dormitory. Metcalf Hall was completed the next year. It was designed to be "a beautiful home for young women and an ornament to the college grounds". Tufts men soon took to calling it the "Bird Cage". (Jackson College did not open until 1910, and was, in fact, a device to segregate rather than coeducate Tufts students.)

Henrietta Brown entered Tufts in 1892. The first coeducational class included four female first-year students and four theological students, plus herself. Among the first-year students were Ethel Munroe Hayes, who after graduation served as Tufts librarian for half a century, and Cora Alma Polk (later known as Mrs. Frank A. Dewick), who was to become the first female trustee. When Henrietta Brown received her A.B. in 1893 she was the first woman to graduate from Tufts. At the 1893 commencement she delivered the commencement speech. She went on to take a master's degree in chemistry in 1895 (being also the first woman to receive a master's degree from Tufts), and another in history in 1918.

The Brown-Durkee Dynasty at Tufts

In 1894-95 Henrietta Brown worked as an assistant, helping to equip a new chemical lab, recently moved from Ballou Hall to a building of its own. In February 1895 she and Frank Williams Durkee, A1888, H1921, Instructor (later Professor) of Chemistry were married in Goddard Chapel. They took up residence in the Brown House. Durkee had become instructor of chemistry at Tufts in September 1893, when the Tufts faculty consisted of just 25 men; he was also director of the gymnasium. For a quarter century he was chairman of the Department of Chemistry at Tufts. In 1921 he
received an honorary doctorate of science. During his tenure the Pearson Memorial Laboratory of Chemistry was erected. In 1939 he was the first recipient of the Hosea Ballou Medal for Distinguished Service. He died in the same year.

Henrietta and Frank Durkee also spent their summers in Marblehead, and Henrietta Durkee continued to do so all her life.

Their family became a major Tufts dynasty. Their three children, Margaret Durkee Angell, J1918, M1921, Robert Brown Durkee, A1921, and Benjamin Graves B. Durkee, A1926, all graduated from Tufts, as did Margaret's husband, the football star George W. Angell, A1918, Benjamin's wife Esther E. Thorin, J1929, their grandson George W. Angell, Jr., A1944, their granddaughter Elizabeth Angell Lakin, her brother Robert Calthrop, A1888, her uncle Samuel H. Brown, Jr., A1870, several cousins, a nephew of hers and her brother-in-law Henry Smith Durkee, A1888. When their daughter graduated in 1918, Henrietta Durkee received her M.A. in history, and Frank Durkee's honorary doctorate and Margaret's master's degree were conferred at Robert's commencement in 1921. Benjamin Graves B. Durkee graduated in 1926. Henrietta Noble Brown Durkee died January 31, 1946 in her home on Professors Row. Funeral services were held February 3 in Goddard Chapel.

The Benjamin Brown Scholarship

Benjamin Brown is commemorated by the Benjamin Brown Scholarship. Every year at the Honors Convocation it is given to seniors who have shown promise in scientific research. It was endowed by his son Robert Calthrop Brown when he was a trustee. Two other academic awards commemorate family members. The Durkee Scholarship is named in memory of Frank Williams Durkee and Henrietta Noble Durkee and is given to seniors who have undertaken research problems in chemistry. The Margaret Durkee Angell and Henrietta Brown Durkee Scholarship Fund in Memory of Professor Frank Williams Durkee, is given to a Jackson college senior who, by the end of the junior year, has demonstrated high promise and achievement in chemistry.