# Sweet Auburn

Summer 2001

*Newsletter of the Friends of Mount Auburn Cemetery*




## The Hurricane of 1938: A Lasting Impact on Horticulture at Mount Auburn

### by Dennis Collins

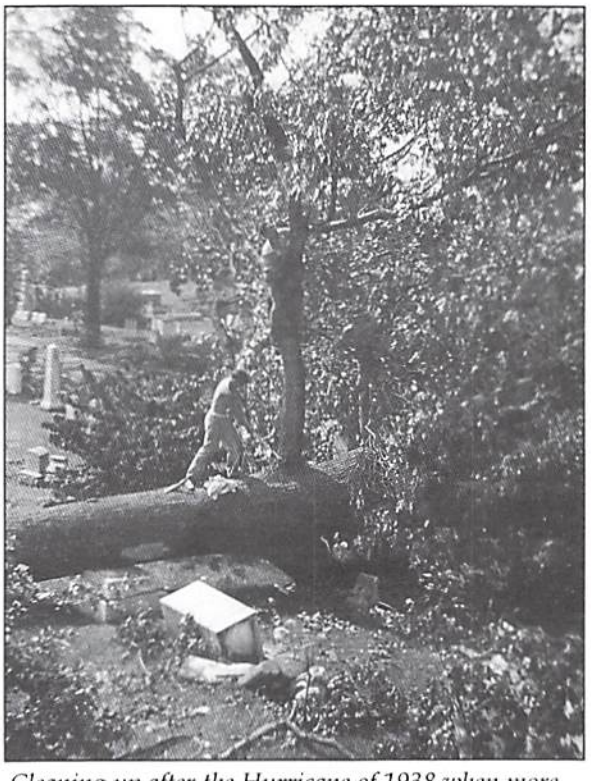
*Historic landscapes always have stories to tell. Perhaps the genius of an original design is evident, or the centuries-old natural beauty of a site is preserved. Likely, we can find at least one major event or critical stage in the history of the landscape. It may be a loss of species due to disease or insects, such as the disappearance of the American Elm. Or it might be an instantaneous impact of one event such as a hurricane. At Mount Auburn, where our horticultural history covers 170 years, it is unlikely that any other event had a more profound impact on the landscape we see here today than the "Hurricane of 1938."*

The 1938 storm caused more damage to the horticultural collection than all the storms we have had since. A total of 811 trees were destroyed; 16% of the collection. This tremendous loss, however, served as a catalyst for the horticultural diversity that is the hallmark of the collection today.

During 1939-40 an extensive planting project installed over 1,500 new trees and shrubs, many of which were novel introductions to the collection. A comprehensive set of records was compiled during the years after the hurricane. They are rich in detail and impressive in sheer volume.

#### A "Treasure" of Plant Records

A few years ago, this set of forgotten records was "discovered" in a dust-covered box. Mount Auburn's plant records staff was in the early stages of inventorying the entire plant collection. The initial excitement of the discovery was quickly replaced by a sobering awareness of the tedious and painstaking work that would be needed to process all the information. Fortunately, a retired horticulture staff member Joe Killilea was serving as a volunteer on the plants inventory project. With his patient and meticulous nature, he was the perfect candidate to begin sorting through the records. Two years later, with the help of other staff members and the technology of our new database and mapping software, we were able to connect over 200 trees now growing on the grounds to their original planting records. In time, hundreds of shrubs will also be connected to the 1939-40 planting project.



*Cleaning up after the Hurricane of 1938 when more than 800 trees were destroyed. In the years 1939-40 more than 1,500 new trees and shrubs were planted.*

If you've been at Mount Auburn recently, you may have noticed that a number of new display labels on trees show a planting date of 1939 or 1940. Nearly 150 such labels have been produced and installed. They feature the planting dates and in some cases the elusive cultivar names of some prominent trees in the collection.

Several public programs have been offered that highlight the surviving trees from the 1939-40 planting. Although the presentations were intended to show how different species matured over a 60-year period, a more interesting story emerged. The research revealed how trees of the same species and of equal size, planted at the same time but in different parts of the grounds, grew into quite different forms and sizes. The effects of site conditions (light, soil conditions, water and competition) on plant growth were dramatized in an impressive way.

Trees planted during the years 1939-40 came from a wide array of sources. Specialty nurseries and growers as far away as the Midwest supplied the plants. The choices of species and cultivar types show a deliberate attempt to try plants that were new or rare at the time. Even today, many of the surviving trees seem novel since they were never accepted into the mainstream of the nursery production industry. While certain plants like the Nikko Fir *(Abies homolepis)* from Japan can also be seen in mature form at the nearby Arnold Arboretum, there are some plants introduced at the Cemetery in 1939-40 which are unique specimens growing in the Boston area. An unusual cultivar of Magnolia, developed in Italy in the 1800s (*Magnolia* 'Lennei'), grows beneath some beech trees along Indian Ridge Path. It won't grab your attention except in May when its large purple-magenta flowers make you stop and wonder if you've ever seen a Magnolia like it. Similarly, a Walnut tree from Manchuria *(Juglans mandshurica)*, and a couple of Hickory-Pecan hybrids known as "Hicans" (*Carya x nussbaumeri* 'Burlington', and *Carya x brownii* 'Pleas') have spent many years here on the grounds growing under various "alias" names.

### The Impact of the Storm

The planting project was a significant step toward broadening and diversifying the plant collections at Mount Auburn. There may have been earlier intentions to move in that direction, but perhaps the opportunity was lacking until 1938. The momentum generated by the ambitious planting regimes in the two years after the storm did not fade away. In fact, the horticultural mission articulated by President Oakes Ames in 1939 to collect "...all the more desirable species of trees that will thrive in this climate," has guided the plant selection choices through the many decades that followed. Our plant collections today reflect the continued commitment to this principle.

As we know from more recent hurricanes, damage is greatest to the larger growing species. Shorter trees like the Flowering Dogwood tend to escape destruction unless something falls on them. It is no surprise that the damage statistics from the hurricane show that the leading casualties were the tall-growing shade trees: maples and oaks. (See Table 1.) The large numbers of these trees damaged also reflects the fact that these species were the dominant members of the original indigenous forest.

### A Glimpse into the Past

The damage statistics from the Hurricane of '38 are interesting although they support the predictable pattern of damage for hurricanes. The dominant shade-trees and conifers in the collection, and the weaker-wooded species like catalpa and poplar were the hardest hit. But perhaps the most interesting of the data contained in the summary is

**Table 1. Hurricane of 1938**
**Summary of Damage**

| *Species* | *Trees Destroyed* |
|---|---|
| Maples | 260 |
| Oaks | 144 |
| Elms | 41 |
| Spruce | 40 |
| Catalpa | 23 |
| Poplar | 21 |
| Cherry | 17 |
| Horsechestnut | 17 |
| Pine | 15 |
| Hemlock | 15 |
| All Other Species | 218 |
| **Total Losses** | **811** |

*Fallen trees lined the roads after the Hurricane of 1938.*

**Table 2. Comparison of Species Representation**

| *Species* | *Pre-1938* | *2000* |
|---|---|---|
| Beech | 107 | 136 |
| Birch | 72 | 60 |
| Catalpa | 66 | 2 |
| Cherry | 100 | 94 |
| Crabapple | 193 | 248 |
| Dogwood, Flowering | 160 | 279 |
| Elm | 317 | 39 |
| Horsechestnut | 109 | 38 |
| Magnolia | 54 | 71 |
| Maple | 1,035 | 632 |
| Maple, Japanese | 94 | 79 |
| Oak | 570 | 439 |
| Poplar | 73 | 0 |
| Willow | 257 | 13 |
| Other Species | 463 | 982 |
| **Total Deciduous** | **3,670** | **3,112** |
| Chamaecyparis | 199 | 266 |
| Fir/Douglas Fir | 260 | 241 |
| Hemlock | 177 | 374 |
| Pine | 272 | 556 |
| Spruce | 352 | 190 |
| Other Species | 196 | 551 |
| **Total Conifers** | **1,456** | **2,178** |
| **TOTAL TREES** | **5,126** | **5,290** |

the listing of species losses as a percentage of the total trees for that species. The totals give us a picture of the composition of the tree collection prior to 1938. We can now make a fascinating comparison with the current composition.

Today's plant collections at Mount Auburn Cemetery are remarkably similar in terms of the total number of trees and the relative overall maturity of the trees to what existed before the storm in 1938. What has changed, in a significant way, is the representation of species. In a sense, the general "character" of the landscape has been altered. (See Table 2.) The most understandable change was the loss of American Elm as a major "canopy" tree on the grounds. Dutch Elm Disease was still over twenty years away at the time of the hurricane but the disease had a profound impact. Today our surviving American Elms appear as unusual specimens on the grounds, where they once served as a mainstay in the landscape, lining the avenues with cathedral-like arching branches.

In the years prior to the 1930s the selection of available plant material was limited compared to later years. Also, as in any period, there were favorite (or fashionable) species. The high numbers of catalpa and horsechestnut before 1938 were probably due to their popularity at earlier times. The disparity in willow plantings is less clear. Although still popular today, it is likely that they were used extensively around ponds and wetlands during the 1800s. The relatively short-lived nature of this species and the reduction of wet areas on the grounds probably account for the dramatic change in numbers.

While the numbers for our shade/canopy tree species have shifted somewhat, we still have a collection dominated by maples and oaks. In the conifers, it's interesting to see that pines have come into prominence (led by the native White Pine with 198 trees) replacing spruce in a direct reversal of their proportions in 1938. It's also worth noting that our now acclaimed collection of dogwood trees is a somewhat recent development.

Changes are inevitable in a horticultural landscape, especially over long periods of time. The opportunity to understand our collection is enhanced by seeing it compared with a snapshot from another period. Our responsibilities as stewards of this landscape are well served by having an awareness of this long-term perspective. We are facing decisions that will affect the future of this landscape. Sixty years from now there will be another comparison point to study. It is likely to show surprising changes as well, because horticulture is forever tied to unexpected developments. But if it's any consolation, disasters can also serve as opportunities.

*Dennis Collins, Mount Auburn's Curator of Plant Collections, is currently in Edinburgh, Scotland completing his Masters degree in "Biodiversity and Taxonomy of Plants."*

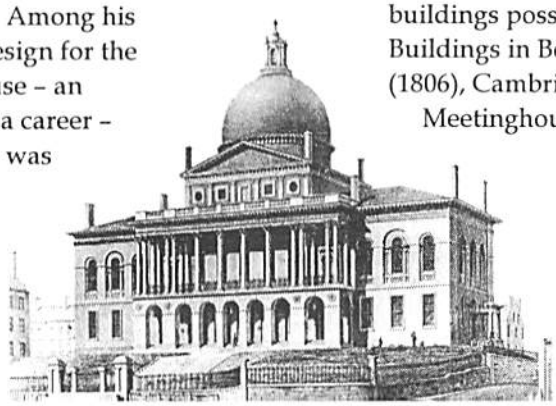
*One of the large maples lost during the Hurricane of 1938. When it fell across the fence into Mount Auburn Street, it torn down the telephone and electrical wires. Photograph, September 28, 1938.*

# A CELEBRATION OF ARCHITECTS AT MOUNT AUBURN CEMETERY

*Many prominent architects of the 19th and 20th centuries are buried at Mount Auburn Cemetery. Most of these individuals worked largely in the Boston area, though some gained national – and even international – renown. The seven architects highlighted here are among those who were most successful in their day and who designed buildings that are still remembered – and in many cases, still used – by the public today.*

**Charles Bulfinch (1763 – 1844)**
**Lot #2308 Bellwort Path**

Charles Bulfinch has been hailed as America's first native-born professional architect. During his 40 years of architectural practice, he was a defining force in the physical development of Federal-era Boston and a major influence on architecture throughout the country. Among his earliest works was his design for the Massachusetts State House – an auspicious way to begin a career – and the end of his career was equally impressive, as he undertook the completion of the U.S. Capitol building. After twelve years in Washington, Bulfinch returned to Boston in 1830 and retired from active practice after completing the Maine State House in 1832. Buildings in Boston include: Tontine Crescent (1794), Massachusetts State House (1797), Massachusetts General Hospital (1823).



*Massachusetts State House, Boston*

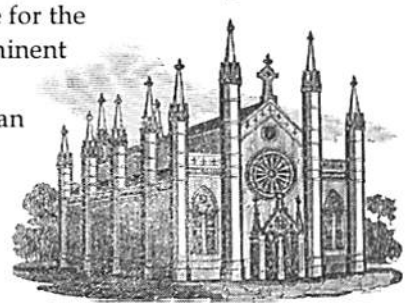
**Asher Benjamin (1773 – 1845)**
**Lot #258 Cedar Avenue**

Born in Hartland, Connecticut, Asher Benjamin began his career as a housewright in the upper Connecticut River valley. His earliest surviving work, the William Coleman House in Greenfield, Massachusetts, contains one of the first elliptical staircases in New England. In 1797, Benjamin published the first of several architectural builders' guides, *The Country Builder's Assistant*, a practical how-to guide for housewrights. Benjamin's early designs drew heavily on late Georgian sources, but increasingly were influenced by Federal style architecture, particularly the work of Boston architect Charles Bulfinch. Benjamin moved to Boston to practice architecture in 1802, and Bulfinch's influence showed even more prominently in Benjamin's second publication, *The American Builder's Companion* (1806), as well as in his designs for buildings. While Benjamin's own works were competent and handsome, his greatest contribution to American architecture lies primarily in his instruction books – seven in all, frequently reprinted – that helped rural builders throughout the eastern United States create numerous local buildings possessing dignity and beauty. Buildings in Boston include: Old West Church (1806), Cambridge Street; Charles Street Meetinghouse (1807); First Church (1808), Chauncy Street; William Ellery Channing House (1836), Beacon Street.

*Old West Church, Boston*

**Jacob Bigelow (1787 – 1879)**
**Lot #116 Beech Avenue**

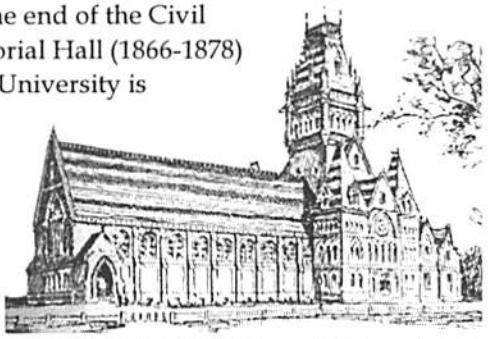
One of the principal founders of Mount Auburn Cemetery, Jacob Bigelow was a man of many talents: physician, botanist, author, scientist, illustrator, and architect. He published several early and extensive works on botany, coined the term "technology," renounced bloodletting as a medical treatment for illness, and was an influential professor at Harvard in the fields of medicine and applied science. Bigelow became an enthusiastic promoter of the rural cemetery idea, and served as president of Mount Auburn for over 25 years. He was also responsible for the design of three prominent structures at Mount Auburn: the Egyptian revival gate (1832), Bigelow Chapel (1844), and Washington Tower (1852).



*Bigelow Chapel, Mount Auburn Cemetery*

**William Robert Ware (1832-1915)**
**Lot #202 Locust Avenue**

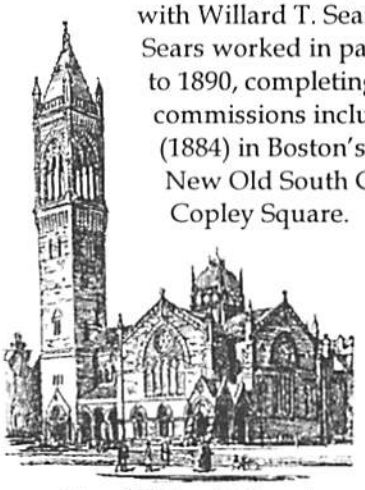
William Robert Ware was both architect and educator. He founded the first school of architecture in the United States at the Massachusetts Institute of Technology in 1866. He later established the school of architecture at Columbia University in New York City in 1881. He and Henry Van Brunt (buried in Cambridge Cemetery) began practice in Boston following the end of the Civil War. Memorial Hall (1866-1878) at Harvard University is perhaps their best known work.



*Memorial Hall, Harvard University*

**Charles Amos Cummings (1833–1906)**
**Lot #3344 Thistle Path**

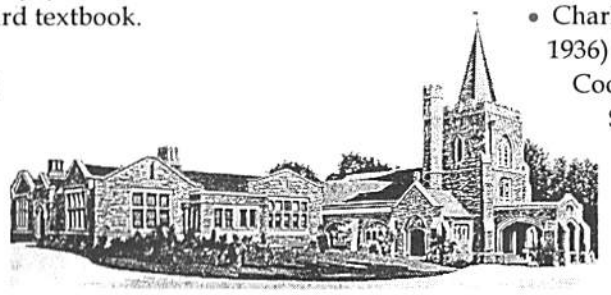
Cummings was a graduate of Rennselaer Polytechnic Institute in Troy, New York and spent some time in the office of Gridley J.F. Bryant, where he worked with Willard T. Sears. Cummings and Sears worked in partnership from 1867 to 1890, completing many notable commissions including the Cyclorama (1884) in Boston's South End and the New Old South Church (1876) at Copley Square. After 1890 Cummings focused primarily on writing. In 1904 he published the *History of Architecture in Italy* and co-authored the *Cyclopedia of Works of Architecture in Italy, Greece and the Levant* (1896-1903) with William P.P. Longfellow. He also collaborated with Russell Sturgis on the *Dictionary of Architecture and Building* (1901-1902), a standard textbook.



*New Old South Church*

**Willard T. Sears (1837-1920)**
**Lot #5465 Excelsior Path**

Working alone for part of his career and for many years in partnership with Charles A. Cummings, Willard Sears designed a range of notable Boston area buildings. After parting with Cummings in 1890, Sears worked with Isabella Stewart Gardner on her famed Fenway home (the Gardner Museum, 1899) and was also the architect of the Administration Building and Story Chapel at Mount Auburn Cemetery. Fairly little is known about Sears' life, and few architectural drawings from the firm of Cummings and Sears survive.



*Story Chapel and Administration Building, Mount Auburn Cemetery*

**Robert Swain Peabody (1845-1917)**
**Lot #2813 Bellwort Path**

A graduate of the Harvard Class of 1866, Robert Swain Peabody studied at the Ecole des Beaux Arts. He set up practice with John G. Stearns and their firm was one of the most important in the country with over 1,000 commissions – commercial, residential and resort. They built more than 80 residences in Boston's Back Bay, and Peabody designed his own home at 22 The Fenway in 1901. The firm designed the Mechanical Arts Building at the World's Columbian Exposition in Chicago in 1893. Their most visible contribution to the architecture of Boston was the Custom House Tower completed in 1911.

*Custom House Tower*

**Other notable architects buried at Mount Auburn Cemetery:**

- Arthur Little (1852-1925), Lot #6734 Narcissus Path, known for Colonial Revival residential work
- Eleanor Raymond (1887-1989), Lot #637 Greenbrier Path, early 20th-century modernist
- George Howe (1886-1955), Lot #673 Greenbrier Path, co-architect of the modern skyscraper PSFS Building (1932) in Philadelphia
- Clarence Blackall (1857-1942), architect of the Metropolitan Theatre (now the Wang Center for the Performing Arts, 1925) and other Boston theatres
- Charles Allerton Coolidge (1858-1936) of Shepley, Rutan and Coolidge, architects of Boston's South Station (1899)

These materials were prepared for Friends walking tours by Cathy Breitkreutz, Assistant Director for Interpretive Programs, Mount Auburn, and Nancy Jones, National Park Service. In December 2000, Cathy relocated to the Washington DC area. We wish her well in her new home.

## Biographical Note

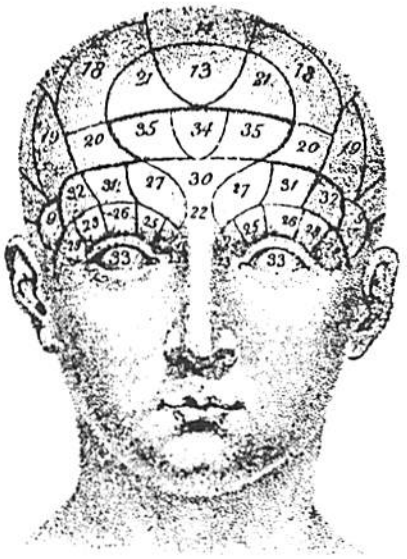
**J. Gaspar Spurzheim**
1776-1832

Born on last day of the year 1776 in Longvich, a village near Trier (or Treves), a German city on the Moselle River near the Luxembourg border, Johann Gaspar Spurzheim was the son of a local farmer. Raised in a Lutheran family, he received a classical education at the college in Trier intending to follow a theological profession. When war between Germany and France interrupted his education in 1799, he went to Vienna where he became the student and later the colleague of Dr. Franz Joseph Gall, an established physician.

Gall had discovered what he felt was a distinct correlation between external prominences of the skull and the talents, character and mental capacities of individuals. Just as eyes were the organs of sight, Gall proposed that different parts of the brain were the organs or locations of different intellectual and moral capacities.

By 1804 Spurzheim had become Gall's associate and undertook to perfect the dissection of the brain. In 1805, Spurzheim and Gall left Vienna and traveled throughout Germany explaining their physiological discoveries. Their demonstrations were greeted with interest and acclaim.

In 1807 they settled in Paris and demonstrated their theories for leading doctors and scientists. They built a large collection of skulls and casts of heads to illustrate how certain parts of the brain were indicative of certain mental powers. It was Spurzheim who adapted the word *Phrenology* (the science of mind) to describe this new theory, and he sought to apply its findings to moral reform.



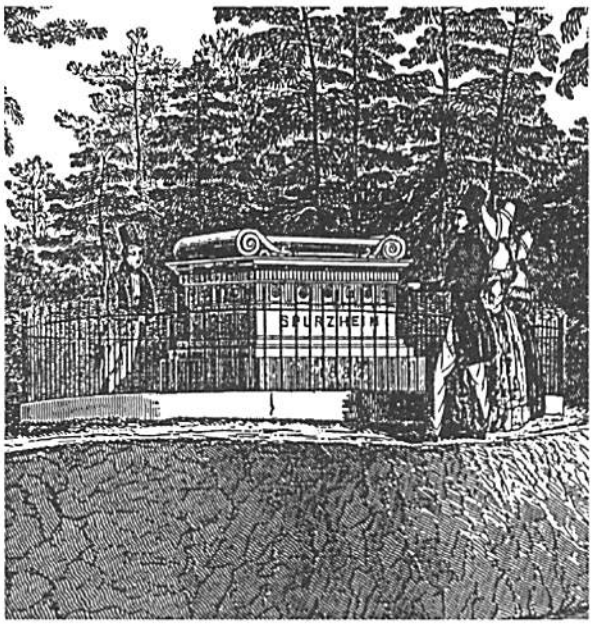

*Spurzheim's Phrenological Head, illustrating the locations of the powers and organs of the mind.*

*Johann Gaspar Spurzheim. Illustration from the portrait by Fisher, published in Nahum Capen's* Reminiscences of Dr. Spurzheim and George Combe, *1881.*

In 1814 Spurzheim moved to London and lectured throughout England and Scotland. Although many medical experts were quite skeptical of the theory, all were impressed by his anatomical demonstrations and admired his powerful intellect. Spurzheim continued to gain converts, and in 1817 he was made a Licentiate of the Royal College of Physicians.

Later in 1817, he returned to Paris where he continued his lectures on anatomy, physiology and pathology and became a Doctor of Medicine at the University of Paris. He married a widow with three daughters. His wife was a skillful artist and aided him by supplying many of the drawings used in his lectures. After her early death, he devoted himself to popularizing his ideas. He published numerous books: *Phrenology*, focused on the powers of the mind and their related organs of the brain; *Anatomy of the Brain*, devoted to the investigation of the brain and nervous system, and *Philosophical Principles* in which he expounded his thoughts on the mind and its relation to religion and morality. He explained his theories of education in his *Elementary Principles of Education* and collected his observations on the deranged functions of the brain in a work entitled *Insanity*.

In 1832 he traveled to the United States for a projected two-year stay of travel and lectures. Shortly after his arrival in New York in early August




*Visitors at Spurzheim's monument on Central Avenue. Illustration, ca. 1835.*

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he went to New Haven and lectured at Yale. One leading scholar spoke of the "amiable, winning simplicity of his manners, and his unpretending good sense, and good feeling."

He then moved to Boston and began a course of lectures on the anatomy of the brain for medical men and two series of lectures on phrenology, one in Boston and one in Cambridge. The lectures on the brain were given without any reference to the doctrines of phrenology and gained Spurzheim great respect as an anatomist of the brain. His principles of education also were highly regarded.

His phrenological theories were acclaimed by some and rejected by others but he was honored for his devotion to the promotion of the knowledge of human nature and his insistence on careful and actual observations to yield ultimate truths. He labored hard at his daily lectures apparently to the neglect of his own health. Near the close of the lecture series in late October, he was confined to his bed where he died on November 10, 1832.

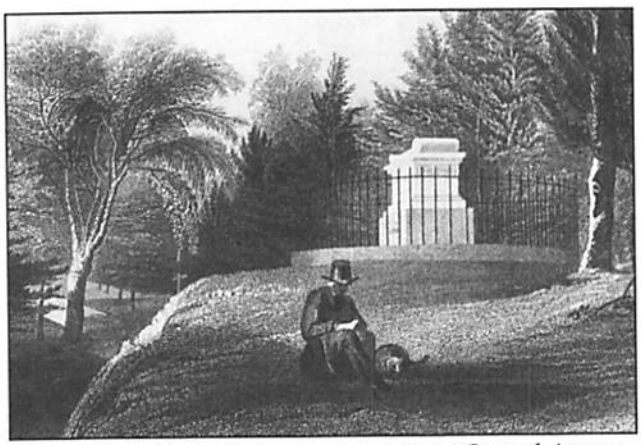
The Boston Medical Association unanimously voted to attend his funeral and to express respect for his researches in anatomy and physiology and deep interest in his opinions on the "moral and physical improvement of Man." Josiah Quincy, president of Harvard University (Lot #396 Sweetbrier Path) served as the chair of a committee to arrange for Spurzheim's funeral and the embalming of his body.

After the funeral service on November 17 at the Old South Church, attended by over three thousand people, his body was conveyed to the receiving tomb belonging to Mount Auburn Cemetery at the Park Street Church. Wealthy Bostonian William Sturgis paid for a beautiful Italian monument to be placed at a prominent place near the entrance of the Cemetery.

Although there is no Cemetery record of when Spurzheim's body was brought to Mount Auburn, published accounts document that his skull, brain, and heart were removed and then preserved in a fire-proof safe in the keeping of the Boston Phrenological Society and that the "remaining parts of the remains were deposited under the monument." The striking monument to Spurzheim's memory became one of the most celebrated features of the new cemetery.

Sources: *Professor's Follen's Funeral Oration Delivered at the Burial of Dr. G. Spurzheim*, 1832. Nahum Capen, *Reminiscences of Dr. Spurzheim, 1881.* Charles Colbert, *A Measure of Perfection: Phrenology and the Fine Arts in America*, 1997. John van Wyhe, The History of Phrenology on the Web (http://www.jmvanwyhe. freeserve.co.uk).

Janet Heywood



*Engraving of Spurzheim's monument on Central Avenue by James Smillie, 1847.*

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FRIENDS OF
MOUNT AUBURN CEMETERY

Summer 2001

*Printed on recycled paper*


*This 1939 photo shows newly planted trees. Of them a large maple remains at Lawn Avenue & Galanthus Path.*