



**Survey and Research Report On
The William Jeffers & Company Hand-Powered Pumper (1861),
The American Fire Company “Metropolitan” Steam-Powered Pumper
(1902), And The American LaFrance & Foamite Company Fire Truck
(1928)**



William Jeffers & Company Hand-Powered Pumper (1861)



**The American Fire Engine Company “Metropolitan” Steam-Powered
Pumper (1902)**



The American LaFrance & Foamite Company Fire Truck (1928)

1. Name And Address of the Property. The William Jeffers & Company Hand-Powered Fire Engine (1861) and the American Fire Engine Company “Metropolitan” Steam-Powered Pumper (1902) Are Located In the Headquarters Building Of The Charlotte Fire Department At 500 Dalton Avenue, Charlotte N.C. The American LaFrance & Foamite Company Gasoline-Engine-Powered Pumper (1928) Is located In the Charlotte Fire Department Shop On 28th Street, Charlotte, N.C.

2. Name And Address Of The Current Owner Of The Property.

Charlotte Fire Department
500 Dalton Avenue
Charlotte, N.C. 28206
Telephone: 704-336-4174

3. Representative Photographs Of The Property. This report contains representative photographs of the property.

4. Map Depicting The Location Of The Property. Legally, the property is personal, movable property. Therefore, no map depicting the location of the property is included.

5. Current Deed To The Property. There are no deeds recorded on this personal, movable property.

6. Historical Sketch Of The Property. This report contains a historical sketch of the property prepared by Dr. Dan L. Morrill.

7. A Physical Description Of The Property. This report contains a physical description of the property prepared by Brandon Lunsford .

8. Documentation Of Why And In What Ways The Property Meets The Criteria For Historic Landmark Designation Set Forth In N.C.G.S. 160A-400.5

a. Special Significance In Terms Of Its History, Architecture, And/OR Cultural Importance. The Charlotte-Mecklenburg Historic Landmarks Commission judges that the William Jeffers & Company Hand-Powered Pumper (1861), the American Fire Engine Company “Metropolitan” Steam-Powered Pumper (1902), and the American LaFrance & Foamite Company Gasoline-Engine-Powered Pumper (1928) possess special significance. The Commission bases its judgment on the following information.

1. The William Jeffers & Company Hand-Powered Pumper (1861), the American Fire Engine Company “Metropolitan” Steam-Powered Pumper (1902), and the American LaFrance & Foamite Company Gasoline-Engine-Powered Pumper (1928) are the only extant fire apparatuses of their types that exist in the collection of fire engines owned by the Charlotte Fire Department.

2. The William Jeffers & Company Hand-Powered Pumper (1861), the American Fire Engine Company “Metropolitan” Steam-Powered Pumper (1902), and the American LaFrance & Foamite Company Gasoline-Engine-Powered Pumper (1928) document the evolution of fire engines used by Charlotte firefighters from the last quarter of the nineteenth century until the mid-twentieth century.

3. The William Jeffers & Company Hand-Powered Pumper (1861), the American Fire Engine Company “Metropolitan” Steam-Powered Pumper (1902), and the American LaFrance & Foamite Company Gasoline-Engine-Powered Pumper (1928) have been restored to operational condition and therefore possess educational value, not only for Charlotte but for communities throughout North Carolina.

4. The City of Charlotte acquired the William Jeffers & Company Hand-Powered Pumper (1861) for use by Charlotte’s African American Volunteer

Fire Company. Consequently, the William Jeffers & Company Hand-Powered Pumper Is an Important Artifact Of Charlotte's African American History.

b. Integrity Of Design, Workmanship, Materials, And/Or Association.

The Charlotte-Mecklenburg Historic Landmarks Commission judges that the physical descriptions included in this report demonstrate that the William Jeffers & Company Hand-Powered Pumper (1861), the American Fire Engine Company "Metropolitan" Steam-Powered Pumper (1902), and the American LaFrance & Foamite Company Gasoline-Engine-Powered Pumper (1928) meet this criterion for special significance.

9. Ad Valorem Tax Appraisal. The subject properties are publicly owned and are therefore not subject to the payment of property taxes.

Date Of The Preparation Of This Report: August 7, 2017.

Report Prepared By: Dr. Dan L. Morrill.

Historical Essay



Charlotte Fire Department Acquired The American Fire Engine Company Steam-Powered Fire Engine In 1902.

Summary Of Significance. The three vintage fire engines examined in this report possess special historic significance because they illustrate the evolution of firefighting apparatuses that operated in Charlotte from the 1870s until the 1950s. They are the only surviving examples of their types still

owned and operated by the Charlotte Fire Department. Charlotte acquired the William Jeffers & Company hand-powered pumper in 1875, the American Fire Engine Company steam-powered pumper in 1902, and the American LaFrance & Foamite Company gasoline-engine-powered pumper in 1928. Charlotte Fire Chief Jon Hannan (1956-Present) says:

“The three of them together nicely show the hand-drawn, hand-operated, horse-drawn, steam-operated, gasoline, internal-combustion-powered equipment. It really shows the three steps the Fire Department went through very neatly. It’s a very neat historical perspective of the entire fire service.”¹

The William Jeffers & Company hand-operated pumper has individual special significance because the Charlotte Board of Aldermen purchased it second-hand in 1875 for assignment to the African American Volunteer Fire Company in Charlotte. It is the only extant fire apparatus that was operated by the black volunteer firefighters of Charlotte and therefore occupies a unique place in Charlotte’s African American history.

The 1902 American Fire Engine Company “Metropolitan” steam-powered fire engine and the 1928 LaFrance & Foamite Company fire truck are the only extant pieces of equipment that survive from their respective eras of Charlotte’s firefighting history and therefore possess special historic significance.

The commitment of the Charlotte Fire Department, and especially Charlotte Fire Chief Jon Hannan, to the preservation and restoration of these pieces of vintage firefighting equipment bears witness to the special place they occupy in the history of firefighting in Charlotte, a major urban center of North Carolina.

Historical Essay.

The significance of Charlotte’s firefighting equipment is best understood within the context of the evolution of firefighting in the country as a whole. Fire has been both mankind’s friend and damaging foe throughout the ages. The benefits of fire have been numerous. Fire cooks our vegetables, bakes our bread, heats our homes, and makes metal malleable. European settlers of North America found flames useful as a means to clear forests and to establish arable fields. But conversely, calamitous fires have consumed many villages, towns, and cities over the centuries. Boston experienced the first of

its major blazes in 1631. Charleston, South Carolina became known as the “city of fires.” Flames destroyed large sections of that Carolina port in 1698, 1699, and 1700. “In villages built largely or entirely of wood,” writes historian Donald J. Cannon, “destructive fires were a continual threat and a frequent occurrence.”²



Bucket Brigade

The fundamental attributes of successful firefighting are organization, training, and up-to-date equipment. Spontaneous, undisciplined, and unplanned responses to blazes are almost always doomed to failure. The customary method of suppressing fires in the 1600s was to summon volunteers to bring buckets, hooks, ladders, and hand-operated syringes or “squirts” to douse blazes with water. Water was transported from the nearest source to the fire by men lined up in bucket brigades.³ If necessary to keep flames from spreading, buildings would sometimes be destroyed to deprive fires of nearby combustibles. This approach oftentimes succeeded with small blazes; but major fires, such as the conflagration that engulfed London, England in 1666, were virtually unstoppable. The London fire of 1666 destroyed five sixths of the city, burned down over 13,000 homes, and consumed 93 of London’s 109 churches. The devastation wrought by that massive blaze profoundly affected attitudes concerning the importance of fire suppression, including the attitudes of the people of Colonial America, where many citizens of English background resided.

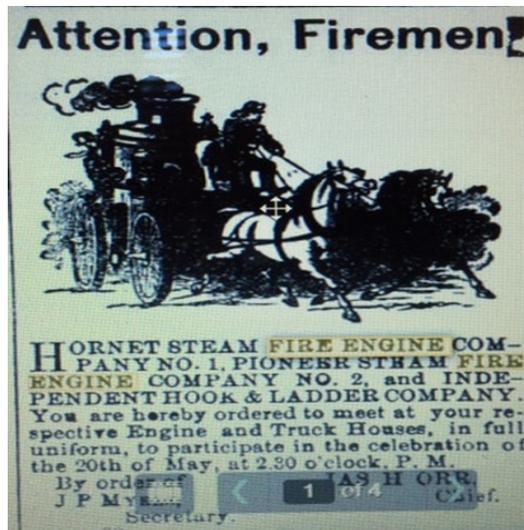
The 1700s and early 1800s witnessed improvements in firefighting techniques, including the introduction of more efficient equipment, principally hand-powered fire engines to propel water toward the flames. A major technological breakthrough in firefighting had occurred in 1672, when the Dutch had developed leather fire hoses. This innovation made it possible to

pump water through hoses for a considerable distance, thereby allowing groups of firemen to operate hand-powered fire engines at a safe distance from the flames.⁴ Only large cities could afford fire engines at the outset. Philadelphia got a fire engine in 1719. New York City purchased its first hand-pumper in 1731. It was not until 1842 that Charlotte acquired its first fire engine.⁵ Another was bought in 1857. In May 1866, Charlotte had two fire engines and was under contract to buy its third, a steam-powered pumper.⁶

The people of Charlotte considered the prospect that fires would erupt in their midst with great apprehension. The Charlotte Female Academy was consumed by flames in March 1851.⁷ A major fire occurred in May 1856, threatening the “destruction of a very large and valuable portion of the town.” It was controlled by “blowing up several houses with kegs of powder.”⁸ The *Charlotte Democrat* reported that the two fire engines then in town were dispatched to the blaze “but sufficient water could not be obtained from the pumps and wells in the neighborhood to keep one steadily in motion.”⁹

Local governments introduced an array of regulations to suppress the outbreak of blazes. Outdoor fires were banned, and curfews covering indoor fires were enacted. On April 15, 1831, Charlotte passed an ordinance ordering residents not to light fires in their chimneys in “dry weather.”¹⁰ Towns hired inspectors to examine chimneys, because that was where many fires originated. Controls on the storage of combustible materials, such as hay and straw, were established. In April 1859, Charlotte decreed that “no person shall keep, or suffer to be kept, any hay, straw, fodder shavings, or other combustible matter, in any building where fire is kept constantly.”¹¹ Officials in some places mandated that new buildings had to be constructed with brick or stone. Communities recruited fire wardens to walk the streets at night and sound the alarm if flames were spotted.

The degree of coordination and the level of commitment required to operate fire engines led logically to the creation of volunteer fire companies in the eighteenth and early nineteenth centuries. Charlotte was among the many towns that incorporated volunteer fire companies and supplied them with publicly-owned fire engines, hoses, hooks, ladders, and other essential equipment.¹² There were “several volunteer fire companies” operating in Charlotte by September 1835.¹³ The *Charlotte Democrat* announced on October 13, 1857, that the Charlotte Fire Engine Company had forty members, “all dressed in full uniform.”¹⁴



Charlotte's First Steam-Powered Fire Engine Was Acquired In 1866 And Assigned To The Hornet Volunteer Fire Company, A White Company.

Before the Civil War there were no African American firefighters in Charlotte or elsewhere in the South. The defeat of the Confederacy and the end of chattel slavery provided new opportunities for blacks, including the chance to become volunteer firemen. The *Charlotte Observer* of May 20, 1873, reported that the "Yellow Jacket (colored) Fire Company of Charlotte" was journeying to Columbia, South Carolina to participate in a "firemen's jubilee."¹⁵ That African Americans established volunteer fire companies in Charlotte and elsewhere is understandable. Quelling blazes was almost universally appreciated. If someone's house was ablaze, the homeowner would welcome help from any firefighter, regardless of color. Being a firefighter offered blacks some relief from the oppressive impacts of racism.

Membership in a volunteer fire company provided black males opportunities to bond with one another and draw strength from one another. "From an association organized to realize a practical goal," writes historian Rebecca Zurier, "the volunteer fire company developed into a kind of club that was part athletic team, part secret society, part fraternity."¹⁶ James McCullough, a member of the Yellow Jackets who died in March 1873, was buried "by his brother members." "The company made a very handsome display on Friday in the funeral procession," commented the *Charlotte Democrat*, "and conducted the services with credit to themselves and honor to their deceased comrade."¹⁷ On another occasion, the African American firefighters traveled as "a body" to Salisbury, North Carolina to attend a member's wedding. Such

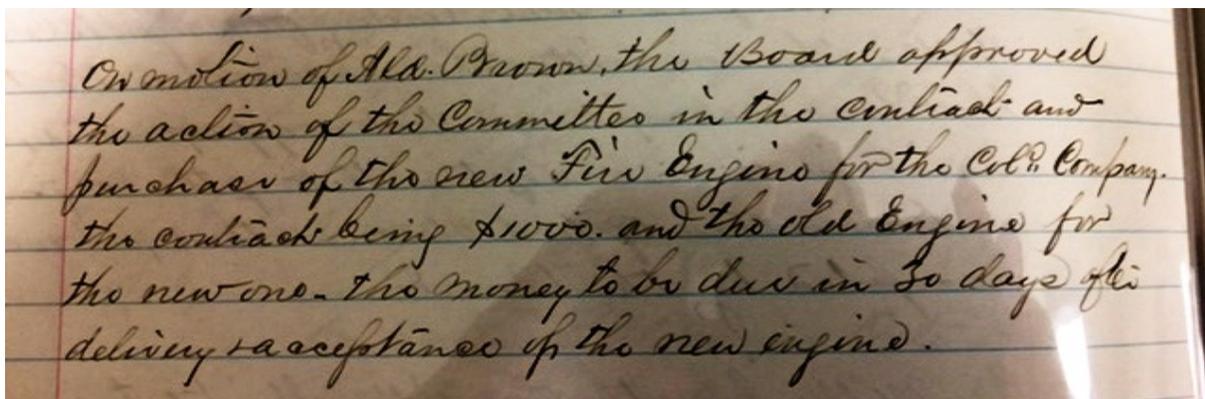
displays of social cohesion among volunteer firemen, black or white, were common.¹⁸

The City of Charlotte provided supplies, facilities, and equipment to the Yellow Jacket Fire Company, just as it did for the white firemen.¹⁹ Accordingly, the City designated the hand-pumper it had purchased in 1857 as the engine for the African Americans to use. Nicknamed “Crazy Hannah,” the apparatus had a reputation of being unreliable.²⁰ But the Yellow Jackets put “Crazy Hannah” to good use and earned the respect of the community at large. On April 20, 1875, the *Charlotte Observer* singled out the African American firemen for special praise. “Few, probably none of the members own any real estate or houses of their own,” the newspaper declared, “yet like good citizens they do all in their power to save the houses of others.”²¹ In April 1879, the African American firefighters had a successful fundraiser, “owing in large measure to the aid from their white friends.”²² In June 1885, the *Charlotte Democrat* stated, when reporting that the black firemen were going to host a July 4th celebration for African American firefighters throughout North Carolina, that the black firemen of Charlotte deserved “a good time” for the “good work” they had done.”²³

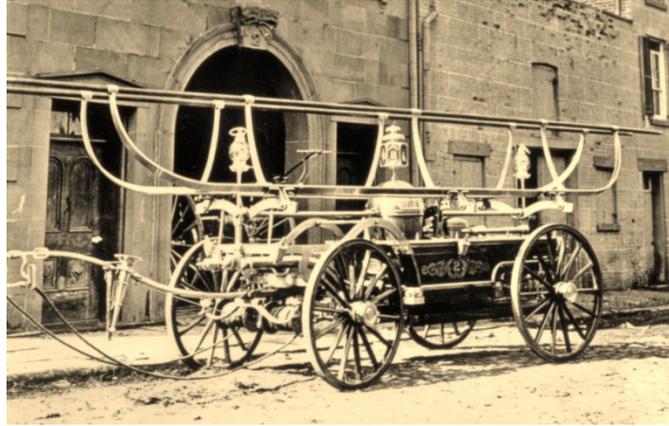


Charles Samuel Lafayette Taylor Was Foreman Of The Neptunes.

The stellar standing the African American firemen enjoyed in the community was probably an important consideration in prompting the City to acquire a more reliable fire engine for the Yellow Jackets. The City arranged for a used hand-pumper to be shipped from New York City in August 1875 for testing by the black firefighters of Charlotte. Manufactured by William Jeffers and Company of Pawtucket, Rhode Island, and placed in service in Paterson, New Jersey in 1861, the engine was designed to shoot water a distance of 200 feet. When the engine arrived, the African American firemen of Charlotte changed the name of their volunteer fire company from Yellow Jacket to “Neptune No. 3,” probably because the volunteer firemen who had operated the hand-pumper in Paterson, New Jersey had called their company “Neptune No. 2.” The black firefighters also most likely did not want to have to change the name painted on the newly-acquired apparatus. The purchase of this more reliable fire engine was finalized by the Charlotte Board of Aldermen on September 2, 1875.²⁴ Volunteer firemen pulled the “Neptune” to fires. Others held on to a drop rope extending from the rear of the hand-pumper, because the fire engine had no brakes.



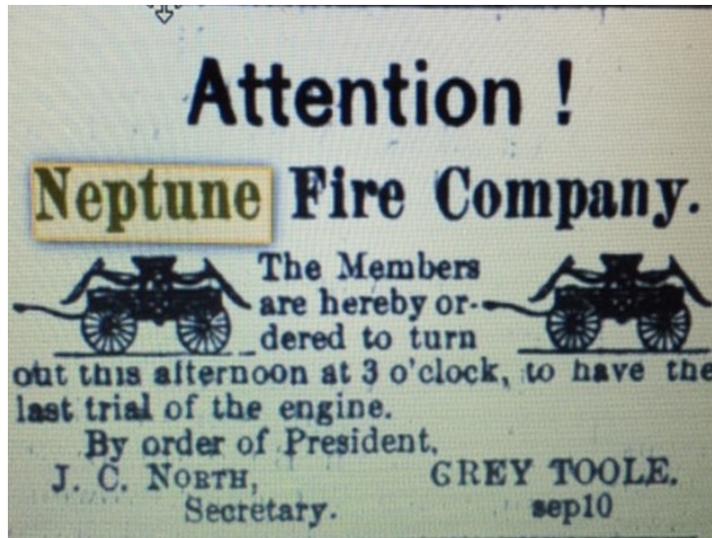
The Motion Reads: On motion of Alderman Brown the Board approved the action of the Committee in the contract and purchase of the new Fire Engine for the Colored Company, the contract being \$1000 and the old Engine for the new one – the money to be due in 30 days of delivery and acceptance of the new engine.



A “Piano Style” Fire Engine Built By William Jeffers & Company And Delivered To The Neptune 2 Fire Company Of Paterson, New Jersey In 1861. This Is The Same Fire Engine Purchased By Charlotte In September 1875 And Assigned To The Newly- Named Neptune Fire Company No. 3 In Charlotte.



The Neptune Hand-Pumper Now On Display In The Headquarters Of The Charlotte Fire Department



This Newspaper Notice Appeared On September 10, 1875. It Orders The Neptunes To Turn Out For The Test Of The New Engine.

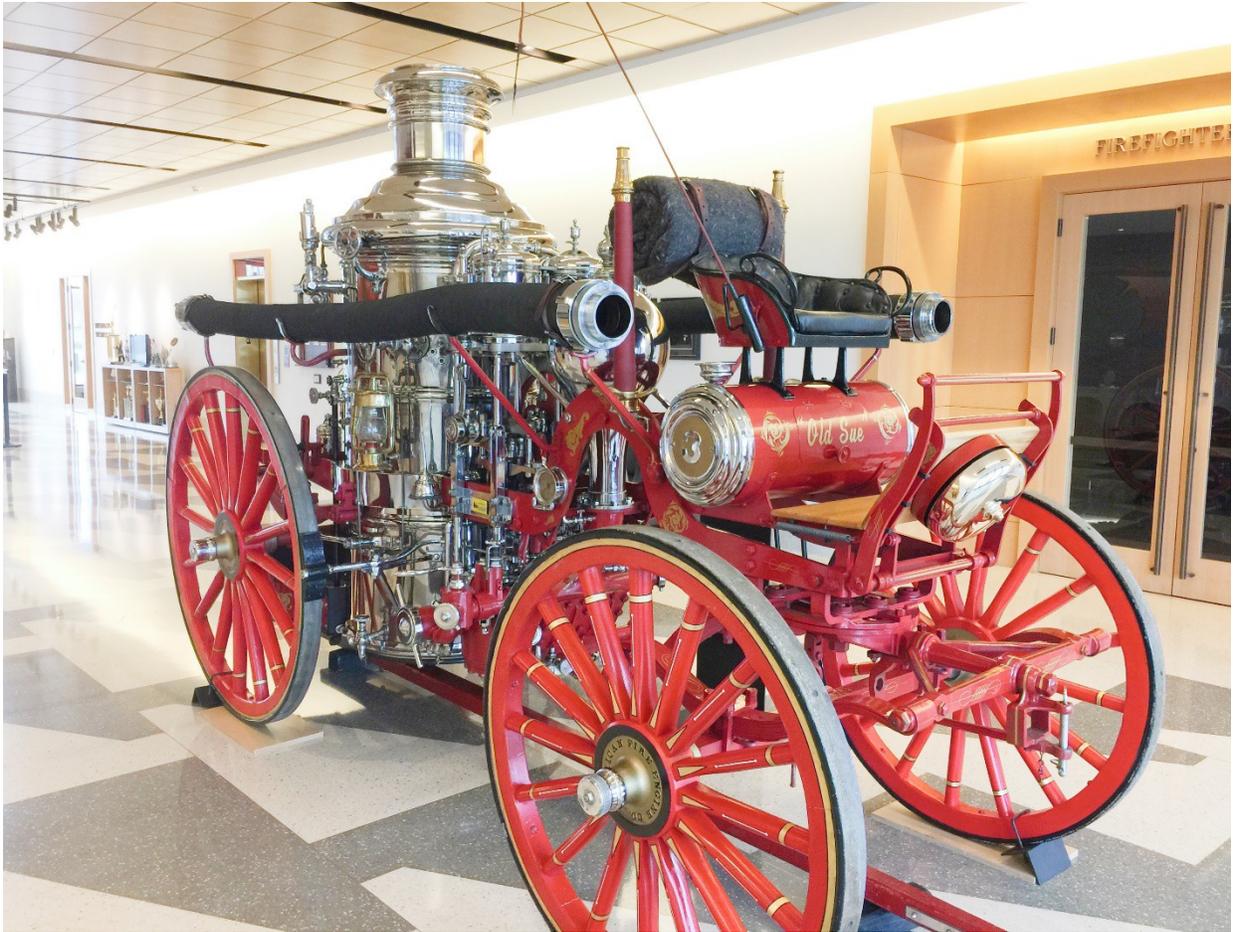
The heyday of volunteer fire companies in cities and towns began to give way to the establishment of municipal fire departments throughout the United States in the last quarter of the nineteenth century. The Charlotte Fire Department was created in 1887.²⁵ Several factors contributed to this trend. There was a growing concern that some volunteer firemen were behaving unprofessionally and were more interested in competing in tournaments or reveling at ribald festivals than in extinguishing fires. In December 1888, a firefighter was ousted from the Neptunes solely “because he voted the Democratic ticket.”²⁶ There were instances when volunteer fire companies refused to cooperate. Such an unfortunate incident occurred in Charlotte in February 1876, when the Hornets and the Pioneers, two white companies, refused to share equipment, “which difficulty entirely ruined the efficiency of both.”²⁷

Sophisticated equipment required a level of training that was beyond the reach of many part-time firefighters. Some volunteer firemen even went so far as to resist the introduction of modern equipment, because they felt it robbed them of the opportunity to demonstrate their manhood.²⁸ They preferred hand-pumpers. Finally, cities and towns were investing increasing amounts of money in firefighting infrastructure, including hydrants, alarm systems, and suburban fire stations. Understandably, local governments sought to assert greater control by creating municipal fire departments. Volunteer companies continued to operate in Charlotte in the last two decades of the nineteenth

century and into the early 1900s, but the momentum was clearly on the side of the Charlotte Fire Department.²⁹

The challenges associated with providing protection from fires intensified in Charlotte in the 1890s. The town's population increased from 11,557 to 18,091 in that decade. Much of the growth resulted from a major expansion of the textile industry; and Charlotte's cotton mills, like their counterparts elsewhere, were full of combustible materials. On May 21, 1901, the *Charlotte Observer* published a letter to the editor that had been sent to a Richmond, Va. newspaper. The letter was critical of Charlotte's fire protection system, contending that the "water supply and fire department" were "both entirely inadequate" and that the city would be "doomed" if a large fire broke out. The writer of the letter reported that many fire insurance companies "were cancelling their lines." "The water mains are too small, and the only fire engine an obsolete affair, built over twenty years ago," the writer declared. The letter ended with a plea that the "business men" of Charlotte recognize the danger and "take immediate steps to properly protect their property."

The Charlotte Board of Aldermen responded to such expressions of concern by approving the expenditure of substantial amounts of money to upgrade the town's firefighting infrastructure. "The present administration is making a record in purchasing splendid equipment for the city's fire department," declared the *Charlotte News*.³⁰ The City purchased a new 32-box fire alarm system in October 1901.³¹ It bought "new and improved hose" and a "twin tank combination, chemical engine."³² On August 19 1901, the *Charlotte News* announced that the City of Charlotte had "placed an order for a first-class steam fire engine."³³ According to the *Charlotte Observer* of October 19, 1901, the steam pumper would arrive "inside of 60 days."³⁴ The new steamer reached Charlotte on January 24, 1902. When tested, it "threw two streams of water" over the top of the 156-foot-high Charlotte City Hall.³⁵ *The Charlotte News* described the new steam-powered fire engine as "the best." "All recognized the need of such an investment," the newspaper opined, "and the city spared neither time nor money." The steamer was the "Metropolitan" model manufactured by the American Fire Engine Company of Seneca, New York. It cost \$4500.³⁶ It was pulled to fires by two horses hitched to the front.³⁷



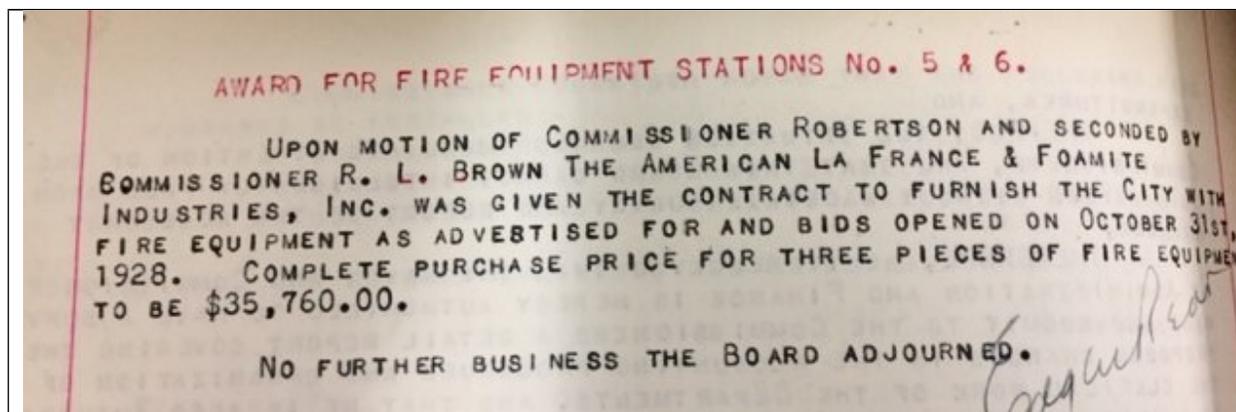
The 1902 American Fire Engine Company Steam-Powered Pumper On Display In The Headquarters of the Charlotte Fire Department. July 2017

On November 23, 1911, the *Charlotte Evening Chronicle* announced that the Charlotte Board of Aldermen had made the “momentous decision” to purchase an “Automobile Fire Truck.” “The over-worker, hard-run fire-horse,” the newspaper proclaimed, “has been relied upon to make two and three-mile dashes without stopping, to reach some far-removed suburban conflagration.” Now they would “have a rest.”³⁸ The transformation of Charlotte’s fire engine fleet occurred quickly in the early twentieth century. A photograph of Charlotte’s fire equipment taken in 1916 shows a number of fire trucks and the last horses still in service.³⁹ The Charlotte Fire Department understood that fire trucks were faster and more reliable than horse-drawn or hand-powered fire engines and adjusted its procurement policies accordingly. Thereafter, fire engine and fire truck became essentially synonymous.



Last Horses Are On Far Right.

The Charlotte Fire Department regularly augmented its fleet of vehicles with fire trucks during the second and third decades of the twentieth century. On November 1, 1928, the City approved a contract to buy three fire apparatuses built by the American LaFrance & Foamite Company of Summerville, South Carolina.⁴⁰ Included in the purchase were two fire trucks. Originally having mechanical brakes and no windshields, the new fire trucks were “top of the line” when they arrived. One was assigned for most of its years of service to Charlotte Fire Station Number Six on Laurel Avenue in the Eastover neighborhood. It became commonly known as “Truck Number Six.” The second LaFrance fire engine bought in 1928 was placed at Charlotte Fire Station Number 5 in the Wesley Heights neighborhood.⁴¹ Only Fire Truck Number Six survives. Charlotte Engine Number Six has been in Charlotte ever since it was purchased in 1928.



Charlotte's current Fire Chief, Jon Hannan (1956 - Present), has continued the tradition of maintaining the historic and antique apparatuses of the Charlotte Fire Department. Hannan began his career as a firefighter with the Newell Volunteer Fire Department in 1972 at the age of 16. He joined the Charlotte Fire Department as a dispatcher in 1978, became a uniformed firefighter in 1983, progressed through the ranks and was appointed Fire Chief in 2007. Hannan has had an abiding interest in the preservation of the Fire Department's legacy throughout his career. His interest has included both historic fire stations and equipment. Hannan believes that the preservation of firefighting artifacts demonstrates to firefighters that they belong to an organization that has delivered a critical service to the citizens of Charlotte for over a century. "It institutionalizes behavior that saves lives," says Hannan.⁴²

In 1986, Hannan was assigned to a committee that identified and supervised the purchase of fire equipment. In this capacity, he interacted with Captain Clifford Grayson, the Superintendent of the Fire Department's Mechanical Division (shop). Captain Grayson was responsible for maintaining the Fire Department's antique equipment and passed his enthusiasm for its preservation on to Hannan. "It was Captain Grayson," says Hannan, "who pulled the 'Metropolitan' Steamer out and pumped it for the Charlotte Fire Department's Centennial Celebration in 1987."⁴³

After Grayson's retirement, there was an abortive attempt to do a "frame-up" restoration of the 1928 American LaFrance. Hannan found the truck disassembled and in pieces when he became Deputy Fire Chief in 1987. Hannan facilitated the full restoration of the American LaFrance largely through the efforts and expertise of Jeff Dixon, an engineer with the Charlotte Fire Department.⁴⁴



The American LaFrance Pumper Is The Fire Truck On The Left. Charlotte Fire Station Number Six On Laurel Avenue Is In The Background.



The Restored 1928 American LaFrance & Foamite Company Pumper.



Fire Chief Jon Hannan Behind The Wheel Of The 1928 Pumper.

Charlotte's American Fire Engine Company "Metropolitan" Steam-Powered Pumper was nicknamed "Old Sue." After being stored for many years in the Morris Field Fire Station at Douglas Airport, the steamer was moved in 1957 to a glass showcase next to Fire Station Number 9, then on East Boulevard.⁴⁵ When Fire Station No. 9 closed in the early 1980s, "Old Sue" was moved with its showcase to the Fire Department Training Center on Shopton Road, where it remained until the Fire Department's Centennial Celebration in 1987. The Steamer was not returned to its glass showcase after the celebration because water was penetrating the structure. Thereafter, "Old Sue" was housed at various facilities until a group of firefighters cosmetically restored the Steamer in the mid-1990s.⁴⁶



Boiler Tests To Certify "Old Sue."



Determined to make “Old Sue” fully operational, Hannan again enlisted the help of Jeff Dixon. Minimal effort was required because of the excellence of the Steamer’s original workmanship and materials. In 2010, “Old Sue” easily passed the North Carolina State Boiler inspection standards. When more stringent requirements for antique boilers were put in place, Hannan reached out to four Duke Energy Engineers for assistance. The four -- Regis Repko, Randy Kaupang, Scott Bowes, and especially Richard Coutant -- worked with Battalion Chief R. L. Myers, supervisor of the project, to bring “Old Sue’s” boiler up to the new higher standards. Certification was granted in March 2017. The Steamer is on display in the lobby of the Charlotte Fire Department Headquarters Building on Dalton Avenue. “Old Sue” is regularly sent to festivals, conventions, and other special events, where it heats water, makes steam, and pumps water.⁴⁷

The history of the William Jeffers & Company “Neptune” Pumper is also complex. The City of Charlotte sold the hand-powered pumper to Marblehead, Massachusetts in 1901, where it was used in competitive tournaments. “The sale was made over the tearful protests of the volunteer firemen of Charlotte, who pleaded for its preservation as a relic,” said the *Charlotte Daily Observer*.⁴⁸ In 1906, the Westfield Veteran Association in Westfield, Massachusetts bought the pumper.⁴⁹ Renamed the “Edwin R. Lay,” the pumper was seriously damaged by fire on December 10, 1912, but was restored.⁵⁰ On March 28, 2012, the Charlotte Fire Department purchased the Neptune pumper from the American Hand Fire Engine Society of Newburyport, Massachusetts for \$50,000 and brought it back to Charlotte.⁵¹ “Attracting African Americans to the fire service has always been a challenge,” says Fire Chief Jon Hannan. “Showing them they have a place in it has

always been a challenge.”⁵² Hannan hoped that the hand-pumper would be an enticement to persuade African Americans to become recruits.⁵³ The “Neptune” is on display in the lobby of the headquarters of the Charlotte Fire Department. It too has been transported to other cities to participate in special events.



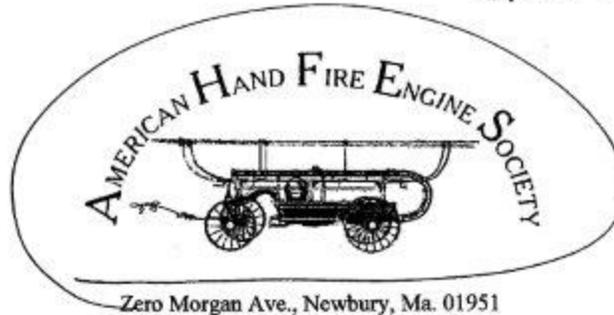
President
Norman Stone Jr.

Vice President
William Knight

128895

Treasurer
Elizabeth Knight

Secretary
Stan Dixon



Zero Morgan Ave., Newbury, Ma. 01951
P.O. Box 321, Newburyport, Ma. 01950

Inv. # MA2112

March 21, 2012

City of Charlotte Fire Dept.
228 East Ninth St.
Charlotte, NC 28202

The American Hand Fire Engine Society, Inc., a non-profit, charitable, organization, located in Newbury, Ma., hereby conveys to the Charlotte, NC Fire Department one (1) 1866 hand operated fire pumper, formerly the Neptune #3 of Charlotte, NC, for the sum of \$50,000.

At this time, we respectfully request that if the Charlotte Fire Dept. should ever decide to part with the engine, we would have first refusal to re-acquire same.

01010032980-0040291

Respectfully yours,

Stan Dixon, Sec.
Stan Dixon, Sec.

Approved
Richard O. Granger
Richard O. Granger
Charlotte Fire Dept.
3-23-12
RICHARD GRANGER

Received
Linda H Lewis
3-23-12

Approved
Ernie D Campbell
3-22-2012



Neptune Pumper Showing Damage From 1910 Fire.



After 1891, The Neptunes Used The Hand-Powered Pumper Only In Tournaments. This Photo Shows Horse-Drawn Equipment. Each Volunteer Fire Company Had Its Own Station.

- 1 Interview of Charlotte Fire Chief Jon Hannan by Dr. Dan L. Morrill, July 13, 2017.
- 2 Donald J. Cannon, ed., *Heritage Of Flames. The Illustrated History Of Early American Firefighting* (Garden City, New York: Doubleday and Company, 1977), 27.
- 3 In some instances residents were instructed to place buckets outside their front doors in case fire broke out.
- 4 Bucket brigades were still used initially for these early hand pumpers, because cities had not yet developed water systems with hydrants. The engines had tubs which had to be filled by men carrying buckets of water. A suction pump propelled the water through the hoses and projected it toward the fire. Up to 50 men would pull the fire engine to the fire.
- 5 *Jeffersonian*, March 22, 1842.
- 6 *Charlotte Democrat*, December 15, 1857; May 22, 1866; February 11, 1868. The City of Charlotte paid \$3811.04 for its first steam-powered fire engine.
- 7 *Charlotte Journal*, March 26, 1851.
- 8 *Charlotte Democrat*, May 27, 1856
- 9 *Charlotte Democrat*, June 3, 1856. Before the establishment of a city-wide water system in 1882, fire engines first depended upon bucket brigades and later upon underground cisterns which collect rainwater.
- 10 *The Journal*, April 21, 1831.
- 11 *Western Democrat*, April 19, 1859.
- 12 For a discussion of the structure and social dynamics of volunteer fire companies, see Rebecca Zurier, *The American Firehouse*. (New York, N.Y.: Abbeville Press, n.d.) 29-30.
- 13 *Charlotte Journal*, September 4, 1835. The City of Charlotte incorporated volunteer fire company as early as 1832. See *Charlotte Journal*, January 25, 1832.
- 14 *Charlotte Democrat*, October 13, 1857.
- 15 *Charlotte Observer*, May 20, 1873
- 16 Zurier, *The American Firehouse*, 29.
- 17 *Charlotte Democrat*, March 18, 1873; June 18, 1874.
- 18 *Charlotte Observer*, May 18, 1897.
- 19 *Charlotte Observer*, March 21, 1873; April 5, 1873.
- 20 *Charlotte Observer*, September 22, 1875.
- 21 *Charlotte Observer*, April 20, 1875.
- 22 *Charlotte Observer*, April 17, 1879.
- 23 *Charlotte Democrat*, June 26, 1885.
- 24 *Minutes of the Charlotte Board of Aldermen*, September 2, 1875; *Charlotte Observer*, August 15, 1875; September 7, 1875; September 11, 1875. On September 28, 1875, the Charlotte Board of Aldermen amended the contract by reducing the purchase price to \$800. See *Minutes of the Charlotte Board of Aldermen*, September 28, 1875. https://www.google.com/search?q=william+jeffers+fire+engines&tbm=isch&imgil=IQxM7c2pn21_M%253A%253B1jadX40A0Z8W9M%253B. <http://www.patersonfirehistory.com/neptune-2.html>, William Jeffers operated his business in Pawtucket, Rhode Island. For a video of the Neptune in operation click on: <https://www.youtube.com/watch?v=pnQ-R1VToXE>.
- It is important to note that the evidence presented in this report contradicts the broadly accepted interpretation of the history of the hand-pumper fire engine used by the African American firemen of Charlotte. It is broadly believed that Charlotte purchased the fire engine in 1866, that it was first used by white firemen, and was assigned to the black firefighters after the white firemen no longer used it. This version is not correct. The City purchased the fire engine in 1875 that had been used in Paterson, New Jersey. It was never used by white firemen in Charlotte and was purchased for the use by the Charlotte's African American volunteer fire company.
- 25 For a history of the Charlotte Fire Department, see *Charlotte Fire Department. Millennium History*, Charlotte, N.C.: Fine Books Publishing Company L.L.C., 1999.
- 26 *Charlotte Observer*, December 2, 1888.
- 27 *Charlotte Observer*, February 18, 1876.
- 28 For an examination of how concepts of masculinity affected volunteer firemen, see Amy S Greenberg, *Cause for Alarm. The Volunteer Fire Department in the Nineteenth-Century City*. Princeton: Princeton University Press, 1998.
- 29 *Charlotte News*, March 5, 1904.
- 30 *Charlotte News*, October 19, 1901.
- 31 *Charlotte News*, October 10, 1901. Fire Chief Jon Hannan told this writer that Thomas A. Edison installed the fire alarm system (*Interview of Charlotte Fire Chief Jon Hannan by Dr. Dan L. Morrill*, July 13, 2017).
- 32 *Charlotte News*, October 19, 1901.
- 33 *Charlotte News*, August 19, 1901.
- 34 *Charlotte Observer*, October 19, 1901.
- 35 *Charlotte Observer*, January 25, 1902. The Charlotte Board of Aldermen gave final approval for the purchase of the Metropolitan steamer on November 4, 1901 (see *Minutes of the Charlotte Board of Aldermen*, November 4, 1901).

36 *Charlotte News*, October 19, 1901.

37 For a video of "Old Sue" in operation click on: <https://www.youtube.com/watch?v=LfPt7yKeYYQ&spfreload=5>

38 *Evening Chronicle*, November 11, 1923

39 *Charlotte Fire Department. Millennium History*, Charlotte, N.C.: Fine Books Publishing Company L.L.C., 1999.

40 *Minutes of the Charlotte Board of Commissioners*, November 1, 1928. *Charlotte Observer*, November 2, 1928.

41 *Interview of Charlotte Fire Chief Jon Hannan*, July 13, 2017. *Charlotte Observer*, November 2, 1918.

42 *Email from Jon Hannan to Dr. Dan L. Morrill*, July 18, 2017.

43 *Email from Jon Hannan to Dr. Dan L. Morrill*, July 18, 2017.

44 *Email from Jon Hannan to Dr. Dan L. Morrill*, July 18, 2017.

45 *Charlotte Observer*, December 6, 1956; February 19, 1957.

46 *Interview of Charlotte Fire Chief Jon Hannan*, July 13, 2017. *Email from Jon Hannan to Dr. Dan L. Morrill*, July 18, 2017.

47 *Interview of Charlotte Fire Chief Jon Hannan*, July 13, 2017. *Email from Jon Hannan to Dr. Dan L. Morrill*, July 18, 2017.

48 *Charlotte Daily Observer*, December 19, 1912. The last time the Neptune was used to extinguish a fire was 1891. In Westfield Massachusetts, the fire engine was named the "Edwin R. Lay." Edwin Ralph Lay (1834-1920) had served as a Union soldier in the Civil War. He was a leader in veterans affairs after the war and was admired by the citizens of Westfield.

49 *Charlotte Daily Observer*, December 19, 1912.

50 *Charlotte Observer*, November 21, 1913.

51 *Interview of Charlotte Fire Chief Jon Hannan by Dr. Dan L. Morrill*, July 13, 2017. <https://www.youtube.com/watch?v=pnQ-R1VToXE> *Letter from Stan Dixon, Secretary of the American Hand Fire Engine Society, to City of Charlotte Fire Department*, March 21, 2012.

52 *Interview of Charlotte Fire Chief Jon Hannan by Dr. Dan L. Morrill*, July 13, 2017.

53 *Interview of Charlotte Fire Chief Jon Hannan by Dr. Dan L. Morrill*, July 13, 2017.



Fire Chief Jon Hannan

William Jeffers & Company Hand-Powered Pumper (1861)

The gross weight of the 1861 hand-powered pumper owned by the Charlotte Fire Department is 3,820 lbs. Its measured overall length is 304.5", the overall width is 70.5", and the overall height is 91". It is of the type known as a piano engine, or piano box, style because the oblong condenser box/ handtub, with its flat deck, suggests a piano. A crew pulled the rig to a fire and manned the pump's folding "brakes" that run horizontally along each side of the body and operate the pump. "Brakes" in this context is an archaic term for pump handles, but the handles also served as brakes to help stop the rig. The brakes were folded when not in use, and when in operation they could be lowered to a breast- high pumping position. It has a 2-cylinder piston pump with a 9" bore, and the stroke is 11"; the variable displacement pump discharges about 699 cubic inches per cylinder, which is 6 gallons per stroke (a stroke is defined as a complete movement of the power bars or brakes – down and up). Hand engines were normally operated at about 60 strokes a minute and were sometimes speeded up to 120 strokes a minute; depending on the amount of strokes per minute the Jeffers hand-powered pumper could displace up to 150 gallons of water per minute and shoot water a distance of over 200 feet.

The engine is equipped with a slotted walking beam or variable displacement adjustment bar, by which the leverage on the pump could be shortened or lengthened and the capacity of the engine could be changed without altering the stroke of the brakes. Its suction hose is known as a "squirrel tail" because it is fixed to the intake and curled up over the apparatus, and is designed so that the water supply can be provided by bucket brigade as well as by hose. The brass brake arms are approximately 20 feet in length, and its double air chamber can develop more than 150 pounds of pressure with the original 10-inch cylinders. It was built with three discharges, two of which would be disconnected when it went into muster competitions. It comes complete with a bell and a hand-pull, as well as vehicle-pull tongues. Volunteers held onto a drop rope extending from the rear of the hand pumper, because the fire engine had no method of stopping its movement. The eduction pipes in front of the condenser box are arched

high enough to permit the front wheels to be turned under the arch, allowing the engine to be turned around in a space its own length.



American Fire Company “Metropolitan” Steam-Powered Pumper (1902)

The overall length of the Metropolitan steam-powered pumper is 166” without its pole attached, and 23.5’ with the pole attached. The overall width of the pumper is 76”, and its overall height is 107”. The gross weight of the steamer is 6,620 lbs., and the gross weight of the steamer along with its cart and four wheels is 10,480 lbs. The American Fire Company and its prime competitor American LaFrance made piston steam fire engines in seven sizes, and the pumper held by the Charlotte Fire Department is the “Metropolitan” Third-size engine, with 650 gallons pumping capacity a minute and 2-cylinder compound vertical pistons. Through short lines of hose the third size engine has one 1 1/8-inch smoothbore nozzle for one stream, and one 1 1/4-inch ring nozzle for two streams; with 1,000 feet of hose, there is one single-inch ring nozzle. The original steamer skin was nickel plated, but when cosmetic restoration was done in 2000 much of the nickel steel was removed and replaced with polished stainless steel. The top cap and the chimney of the steamer are the original nickel plate.

The steamer features a Fox circulating water tube boiler with 120 lbs. of steam-generating capacity, utilizing a positive displacement pump method. It is equipped with gauge-cocks, a glass water gauge, a churn valve, steam and water pressure gauges, a steam whistle, and a suction hose and is fed by force pumps controlled by a globe valve. The steamer sits atop a wooden wagon chassis with a crane frame and four wooden Archibald spoke wheels and is designed to be pulled by two horses, and has a rope reel attached to the forward axle along with a drag rope and a horse tongue. The education pipes in the front of the cart are arched high enough to permit the front wheels to be turned under the arch, allowing the engine to be turned around in a space its own length. The serial number of the 1902 steam pumper owned by the Charlotte Fire Department is #2813.







American LaFrance & Foamite Company Fire Truck (1928)

The American LaFrance and Foamite Company Fire truck has a gross weight of approximately 13,000 lbs. Its overall length is 272" with its ladders removed and 296" with the ladders affixed, with an overall width of 86" and an overall height of 92".

The serial number of the pump on the 1928 LaFrance owned by the Charlotte Fire Department is 15077, and its registration number is 6530. The truck is a right-hand-drive, gas-powered, ALF Type 145 model. This model was manufactured by American LaFrance from 1926 – 1929.

The truck is equipped with a stage 2 rotary gear pump that has a 1,000 gallon per minute water dispersion capacity and 120 lbs. of pump pressure. It has a triple combination pumper, meaning it is equipped with hose body, water, and chemical tanks. The brass pump is equipped with four 2 ½ discharge gates (two on each side) to shut off the water supply to various lines of hose, bleeder cocks to drain the water from the hose lines after pumping has been discontinued, a pump drain, and an auxiliary motor cooling system. The gear pump has a two-speed pump transmission with pressure and capacity ratios regulated by a single lever over the right running board. The LaFrance Fire Truck is chain driven, powered by a AFLCO 6 cylinder, 854 cubic inch, 120 Horsepower T-head engine with a 6-stroke piston length and a 5 ½ inch bore. The T head cylinder is cast in pairs with inlet and exhaust valves on opposite sides, and each piston is fitted with three rings to create a leak-tight join between the piston and cylinder wall. The two-piece hood has mobile hinges which allow it raise on each side to view the engine. The truck features a cab-forward style that American LaFrance innovated, and the open cab has a square clear glass windshield over the driver's side. The cab is mounted with two side spotlights with red glass, and one larger clear-glass spotlight on the opposite side of the steering wheel. Below this spotlight there is a chrome-plated brass fire bell mounted on the passenger's side. The exposed brass radiator is chrome-plated. Mounted forward of the radiator are two round headlights. On the running board on the passenger's side there is a removable brass pump/tank. A two-section extension

ladder is mounted on the driver's side of the vehicle. The large diameter hose sections used to connect to the pump to the water supply, are mounted on the passenger's side. Two small brass pumps are mounted at the rear of the truck behind the rear wheels. The engine has four iron spoke wheels.



