Raleigh Fire Department 1880-1899

Contents

Introduction	2
Chapter 1 - The Eighties, 1880-1889	3
Chapter 2- The Nineties, 1890-1899	12
Chapter 3 - Water, Electricity, and Insurance Maps	21
Chapter 4 – Ballyhoo and Business Meetings	27
Appendix A - Chief Officers	32
Appendix B - City Ordinance	33
Appendix C - Equipment List	36
Appendix D - Bibliography	37

Introduction

The Raleigh Fire Department as it exists today was placed in service on Dec. 23, 1912. While those events are well-documented, the period prior to that time represents an equally formative era in the fire department's history. This document presents two decades of history about Raleigh and its early volunteer fire department. This is version 1.0 and was created on July 19, 2009.

To learn more about the Raleigh Fire Department between 1880 and 1899, please see the following web sites and documents:

Early Raleigh Fire Brigades <u>http://www.legeros.com/ralwake/raleigh/history/writing/brigades.pdf</u>

Raleigh Fire Department Excursions, Conventions, and Content, 1868-1912 http://www.legeros.com/history/ecc/

Raleigh Fire Department Mutual Aid by Train http://www.legeros.com/ralwake/raleigh/history/writing/trains.pdf

Raleigh Fire Department Virtual Museum http://www.legeros.com/ralwake/raleigh/history/museum/

Sanborn Fire Insurance Map Reports <u>http://www.legeros.com/ralwake/raleigh/history/</u>

Chapter 1 - The Eighties, 1880-1889

1880

9,265 people and 1.8 square miles

North Carolina's capital city emerged physically unscathed from the Civil War. By 1880, ten years after the official withdrawal of occupation forces, Raleigh had added new industries, a federal courthouse and post office, and a four-story "skyscraper." Just nine years after opening his hardware business on Fayetteville Street, Thomas H. Briggs built what was the tallest building in eastern North Carolina. Also that year, construction was continuing on Central Prison, the State Fair had moved just north of Hillsboro Street, and the first telephone exchange was operating. Raleigh in 1880 also had a loan association, a YMCA, and a luxury hotel. The popular Yarborough Hotel was also serving as the Governor's residence, as the Governor's Palace was considered unfit for official use after Sherman's arrival 1865.¹

Raleigh's educational institutions at the time included Saint Mary's School, Saint Augustine's Normal School, Peace Institute, and Raleigh Institute, later known as Shaw University. Retailers thrived on Fayetteville Street and the city's largest mercantile firm occupied the first two floors of the three-story Tucker Hall. The top floor featured a 1,200-seat auditorium that hosted entertainment acts ranging from Colonel W. F. "Buffalo Bill" Cody to tenor Pasquale Brignoli. Outside, Raleigh's unpaved streets were lit with gas lamps. Horses and horse-drawn carriages filled the rough roadways, while steam locomotives ferried people and produce in and out of the city.

The fire department was organized as a collection of private fire companies operating under the direction of a municipally appointed chief. Each company was comprised of volunteers using either privately acquired or city-purchased fire equipment. These fraternal organizations elected their own officers and controlled their own memberships with minimal influence from city officials. Decades had passed since the general citizenry were summoned to fight fires, while partial-paid firefighters were still years away. Though each fire company possessed parade uniforms, the dirty business of firefighting was performed in street clothes and sometimes in a member's best clothes. And if their outfits were practically ruined, the joy of the experience outweighed the material damage.²

At the beginning of the decade, Raleigh's fire five companies utilized a variety of hand- and horse-drawn apparatus. The Rescue Company, housed on Fayetteville Street, operated a horse-drawn second-size Gould steam engine. The Phoenix Company, housed in the 300 block of Wilmington Street, operated a hand-drawn, single-tank Champion chemical engine. Raleigh's remaining fire companies were housed in the east end of the Market House, also called Metropolitan Hall: the Victor Company, which operated a hand-drawn Rumsey & Company hand engine³; the Hook and Ladder Company, which operated a hand-drawn hook and ladder truck; and the Bucket and Ladder Company⁴, which operated a hand-drawn equipment truck.

The fire companies were also segregated. The Rescue, Phoenix, and Hook and Ladder companies were comprised of white firefighters, while the Victor and Bucket and Ladder companies were "colored companies." By

¹ The Governor's Palace, located on the later location of Memorial Auditorium, served as headquarters for General Sherman during the Union occupation in 1865. The building remained a Federal headquarters until 1876. The well-preserved building was purchased by the city to house the Centennial Graded School, the first graded school in the city. It opened August 1 of that year.

² *Raleigh Times*, Dec. 17, 1912. The article recounts parade attire: "Rescue men wore big leather helmets, blue shirts and black trousers; the Victor company, colored, wearing red shirts and black trousers with the same sort of helmets." Fred A. Olds in the *Raleigh Times*, Jul. 6, 1914, described the Rescue uniforms as "helmet, red shirts and black trousers, with white and red belts."

³ In 1873, a side-stroke hand engine was purchased for the Victor Company. The Rumsey and Company apparatus cost \$1, 500, and was the fifth hand engine to serve Raleigh. Though public notices were published in 1802 regarding citizen subscription of a fire engine, Raleigh's first hand engine was delivered in March 1819. The apparatus was likely a Philadelphia-style pump. A second hand engine was purchased in 1840. Two replacement engines were purchased in 1851, named the Excelsior and the Rescue.

⁴ Though the *Raleigh City Directory* 1880-81 lists only four the Rescue, Phoenix, Hook and Ladder, and Victor companies, records both before and after list the Bucket and Ladder Company as one of fire companies of that period.

the end of fiscal year 1884, the total staffing of the companies was reported as 281. In his annual report that year, Raleigh Fire Department Chief Engineer T. W. Blake added that the nearly 200 men "were all neatly uniformed and took great pride in their appearance."⁵ His comments on appearance referred to the firefighters' parade uniforms, used for special events. By the end of fiscal year 1887, the number of volunteer firefighters had dropped to 222. Additionally, both the engineer of the Rescue Company steamer and a person with a position titled Keeper of All Machines were paid annual salaries by this time.⁶

The Rescue Company fire station was built in 1870 on the Salisbury Street side of the county courthouse lot. The square-block lot was bordered by Fayetteville, South Salisbury, West Martin, and West Davie streets.⁷ The land was leased from the county and the two-story brick building was small but sufficient for storing the company's steam fire engine. As the steamer was hand-pulled for its first seven years⁸, provisions for housing horses were not necessary until 1877. The first horses were provided by the city and were likely kept elsewhere. The horses were also likely shared with other city departments, for duties such as hauling trash or sprinkling streets. In 1884, a stable was added to the Rescue Company station at a cost of about \$600.⁹ With additions, the building measured around 2,000 square-feet.¹⁰ The first floor housed the horses and apparatus; the second floor housed the requisite meeting room.

News & Observer, Oct. 15, 1880

Fire

At 12:40 this morning the alarm of fire was given, caused by the burning of the wood house in the northwest corner of the capitol square. The delay of the engines was very great. The offices next to the National Hotel caught on fire, but were saved by the Chemical engine. It was more than twenty minutes before either of the other engines got on a stream. The house, with the belfry adjoining, was totally consumed, and all the trees near by were ruined.

The Phoenix Chemical Company was housed at 308 1/7 Wilmington Street in a building built by the fire company's founder Dr. T. D. Hogg and owned by the fire company.¹¹ Founded in 1879, the fire company possessed both a single- and double-tank Champion chemical engine. Invented in France in 1864, chemical engines were wheeled tanks of soda water between 40 and 80 gallons per tank. Upon arriving at a fire, acid was added and created a chemical reaction that discharged the water under its own power. Chemical engines were ideal for quickly extinguishing small fires, though they could only be used once and required recharging after each use. By Feb. 28, 1889, the Phoenix Company moved to the corner of Davie and Salisbury Streets, to a single-story engine house located adjacent a city storage lot.¹²

The Victor, Hook and Ladder, and Bucket and Ladder companies stored their apparatus in the east end of the City Market building. Built in 1870 between Fayetteville and Wilmington Streets, the long, two-story building housed the Town Hall and the public market. The building also had a clock tower with a bell that signaled fire alarms. The lower level of the east end was later enclosed for the purpose of housing fire appara-

⁵ City of Raleigh, Annual Reports of the Mayor and Officers of the City of Raleigh, 1884.

⁶ City of Raleigh, Annual Reports, 1887.

⁷ The engine house was built by in 1870 the Rescue Company to house their newly delivered steamer. It cost \$5, 000 and the Rescue Company provided the first payment. The city paid the remaining two installments. *Raleigh Times*, Jul. 6, 1914.

⁸ As many as 100 men might pull the 5, 000-pound steamer to and from fires. *Raleigh Times*, Dec. 17, 1912. "The firemen and sometimes citizens grabbed the long lines of rope with colored cords and tassels and handholds of knots every few feet. The rope was pulled from a small reel in the front of the engine and away the crowd went and sometimes through mud that was knee deep." *Raleigh Times*, Jul. 6, 1914.

⁹ City of Raleigh, Annual Reports, 1884.

¹⁰ Sanborn Fire Insurance Maps. New York: Sanborn Map Co., various years.

¹¹ City of Raleigh, Annual Reports, 1884.

¹² City of Raleigh, Annual Reports, 1889; Sanborn Maps, 1888.

tus, though the action was protested by many citizens. They felt the hall was not an ideal location for storing fire apparatus, a fact the fire department later discovered themselves.

The Hook and Ladder Company's apparatus was a hand-drawn wagon that carried their ground ladders and other equipment.¹³ As most of the home of the time were constructed of wood, flames could easily jump between buildings. One method of preventing fires from spreading involved the using a "hook." This large grabhook was attached to about fifty feet of chain and another hundred or more feet of rope. Members would throw the hook through a window and, with all hands helping, they would pull down the house. This was rare done, however, with the property owner aware. Their fire company even had a slogan about this displayed on a big sign attached to their truck. It read "Say the word and down comes your house!"¹⁴

The Victor Company's Rumsey and Company apparatus was described as a "double-decker hand engine" with two sets of handles, or *brakes*.¹⁵ To operating the engine, the firefighters positioned themselves on either side of the apparatus. One line of men stood on the ground, the other on the engine itself. Water was drawn from the fire cisterns in the street using a suction hose. As water was trained on the fire, most likely through hose to a hand-held play pipe¹⁶, the company foreman shouted orders to the crew with a speaking trumpet. These metal megaphones amplified the voice of the foreman so he could be heard above the noise at a fire.¹⁷

The hand pump was considerably lighter than the Rescue steamer and Victor Company invariably reached fires first. They also flowed water first, as the steam engine required a period of time to build pressure. Once the steamer was supplying streams, however, the Victor members pulled back. They remained ready, however, to assist with clean-up and use their small stream when the fire was brought under control.¹⁸

News & Observer, Oct. 16, 1880

Too Much Style

The only funny thing in connection with the fire Thursday night occurred at the National (Hotel). A party from the country totally unused to city life, had a room there and was awakened by someone thundering at his door and yelling fire. The stranger made one jump and grasped his pantaloons and a new ulster¹⁹ he had just purchased, and made a break for the window. There he saw the glare and heard the roar of fire, and was frightened nearly out of his wits. He started to throw the ulster on the ground and jump on it, but some one shouted at him and he ran back. Through the building he went ending up finally in the parlor. He was routed out of that place and then made a wild dash for the out-door air. After running over and knocking down a dozen people in the hallway and on the steps, he got outside, still holding to his pantaloons. Here he got a look at the fire right in front of him and attempted to dash up the street but was prevented. He was, after much persuasion, induced to dress, and then said that his first night in town should be his last, for there was too much style for him. He tells the story on himself, with great humor.

There was an understanding between the two companies that the city fire cisterns were for the steam engine. Thus, the members of the Victor Company learned the location of every well and private cistern in the city. They became experts at entering premises, removing well covers, and operating from inside wells, with a

¹³ The Hook and Ladder Company wagon was obtained in 1870. Legeros, Michael J., Raleigh Fire Department History, http://www.legeros.com/ralwake/raleigh/history.

¹⁴ Raleigh Fire Department, A Historical Sketch of the Fire Department of the City of Raleigh, N.C. Raleigh, 1944.

¹⁵ Raleigh Times, Dec. 21, 1912.

¹⁶ Early hand engines had fixed play pipes that required apparatus to be positioned dangerously close to fires. Improved hoses in the early 19th century allowed the engines to be placed farther from the fire. Hoses could be carried inside structures and interior attacks were made possible. See http://www.firehouse.com/magazine/american/colonial2.html for information on the development of fire hose.

¹⁷ See http://www.firehouse.com/magazine/american/fireground.html for information on the evolution of fireground command.

¹⁸ Raleigh Fire Department, A Historical Sketch of the Fire Department of the City of Raleigh, N.C. Raleigh, 1944.

¹⁹ Merriam-Webster's online dictionary defines an ulster as a long loose overcoat of Irish origin made of heavy material.

member often riding the suction pipe into the well and remaining there during the fire.²⁰ The dogs that patrolled the many properties at first "strenuously objected" to these intrusions, but soon learned that the volunteer firefighters meant business. Many a canine "met his doom" when they encountered a fireman with a large brass nozzle in his hand, making his way for the well in the yard.²¹

By 1885, the Chief Engineer recommended that the apparatus in the Market House be moved elsewhere as the heat from "eating houses with constant fires burning" was damaging the apparatus. He noted that the ladders and the running gear were drying out, and were often so shrunk that that the fire trucks had to be run on rainy days to prevent greater damage. He also cited serious impairing of the valves and pumps of the Victor Company's hand engine.²² He repeated his recommendation to remove the apparatus from the Market House in 1886.²³

The number of fires during this decade was comparably small. In fiscal year 1885, only 12 fire alarms were reported and with only two fires of any magnitude.²⁴ In fiscal year 1887, only 14 alarms were reported. The largest and most destructive was the Raleigh Oil and Fertilizer Company mills, which burned on Mar. 27, 1887. During the fire, two firefighters were injured by falling buildings and a third was badly burned.²⁵ When the fire department responded to a working fire, the event was a considerable amusement for the citizenry. Recalled a *Raleigh Times* writer in 1912: "Once there was a big fire here, quite a spectacular one by the way, at which chairs were brought out and placed on the law of another home near by, and there a large party gathered and enjoyed the scene, nearly all being ladies. As the fire went out one lady remarked 'I declare it has been a real treat.' ^{#26}

With hydrants still several years away from installation in the Capital City, water for firefighting was supplied by several underground cisterns located throughout the downtown area. Constructed of brick and stone and supplied by a series of gutters and pipes that captured rain water, the cisterns were installed as a series of municipal improvements after an 1851 fire that destroyed more than 17 structures.²⁷ By the 1880s, thirteen cisterns of varying capacities were located downtown:

#	Division	Ward	Streets	Gallons	Openings
1	Fifth	Third	Fayetteville & Davie	40,000	2
2	Fifth	Third	Fayetteville between Martin & Hargett	7,000	1
3	Fifth	Third	Fayetteville between Martin & Hargett	7,000	1
4	Fifth	Third	Fayetteville between Hargett & Morgan	7,000	1
5	Fifth	Third	Hargett & Wilmington	10,000	1
6	Fourth	Fifth	Hillsboro & Harrington 30,000		2
7	Third	Fourth	Lenoir & Salisbury	30,000	2
8	Third	Fifth	Davie & Dawson	40,000	2
9	Second	Second	Davie & Person	30,000	2
10	First	First	New Bern & Bloodworth	30,000	2
11	First	First	Blount & North	30,000	2
12	Fifth	Third	Capitol Square, east side	50,000	1
13	First	Third	Capitol Square, west side	50,000	1

²⁰ Ibid.

²¹ Ibid.

²² City of Raleigh, Annual Reports, 1885.

²³ City of Raleigh, Annual Reports, 1886.

²⁴ City of Raleigh, Annual Reports, 1885.

²⁵ City of Raleigh, Annual Reports, 1887.

²⁶ *Raleigh Times*, Dec. 21, 1912. The writer also recounted "In another case, a year or two ago, what seemed to be a fine fire drew quite a crowd, some people running quite a distance to reach the scene, but it turned out to be a pitifully small affair, and one of those who had come some distance expressed very deep regret at the fact that only one building was on fire and said it was a great disappointment to run so far through the mud to see so little."

²⁷ The lack of a sufficient water supply necessitated the use of dynamite to control the blaze on Dec. 15, 1851. *Raleigh Register*, Dec. 17, 1851.

Fire equipment improvements during the 1880s included an automatic relief valve installed on the Rescue Company steamer during fiscal year 1884. The valve helped the pipeman with directing a stream and gave absolute control over the amount of water used, thus wasting very little water. Another improvement for the Rescue Company was the addition of a horse to pull the hose reel that accompanied the steamer to fires. This relived company members of hand-pulling the apparatus that carried the accompanying hose.²⁸ That same fiscal year, the Phoenix Company added a hose reel to their single-tank chemical engine. The added reel also helped distribute the weight of the apparatus and thus improve its handling.

Another improvement during fiscal year 1884 was the remodeling of the Bucket Company's "bucket, ladder, and axe truck." The turning radius was shortened so the apparatus could be turned on its own length. Springs were also added, allowing the truck to run lighter and carry equipment more securely. One piece of older equipment still in possession of the fire department was the old No. 2 hand engine. During that fiscal year, the 1851 hand pump was moved to the Raleigh and Gaston Railroad Company cotton platform. The hand pump was stored in a shed under the water tank and the railroad company promised to put it in "good working order" once they were provided hose for its use.²⁹

Another development during the decade was the appointment of Raleigh's first commission to oversee the fire department. In his Apr. 1, 1886 annual report, the Chief Engineer asked for the creation of a Fire Committee. Like the Street Committee, Light Committee, and Police Committee, this group of citizens would review concerns and make recommendations regarding fire protection.³⁰ The suggestion was repeated the next year and on Nov. 4, 1887, the Board of Alderman appointed Raleigh's first five-member Fire Commission.³¹

By 1887, work on a municipal water system was underway.³² Fire hydrants would soon be installed throughout the city and officials began evaluating the purchase of additional fire equipment. On Apr. 1, 1887, the Fabric Fire Hose Company of New York proposed to furnish the city with 500 feet of their "Arrow Brand of Mildew and Rot-proof, Balance-woven, Cotton Rubber-Line Hose." The 2 1/2 inch diameter hose was fitted with standard screw couplings and included either a one-horse or hand-pulled hose reel. A sample lot would be shipped by May 1, 1887 and subjected to acceptance testing when the water system was placed in service. The proposal was accepted.³³

Raleigh's water system was completed by October of that year and included 120 hydrants. Hose streams could now be supplied throughout the city limits, with firefighters connecting their hoses directly to hydrants. Neither steam- nor hand-powered pumps were required within the areas served by the water system. Accordingly, the fire companies began receiving new equipment, beginning with a horse-drawn hose wagon for the Rescue Company.³⁴ New fire companies also began appearing at this time. With fire protection no longer requiring an expensive steam engine or a labor-intensive hand engine, additional companies could join the Raleigh Fire Department with lower equipment costs and a smaller number of personnel.

³³ ibid.

²⁸ City of Raleigh, Annual Reports, 1884.

²⁹ ibid.

³⁰ City of Raleigh, Annual Reports, 1886.

³¹ City of Raleigh, Annual Reports, 1887.

³² Several earlier attempts to supply the city with reliable water were unsuccessful. The most notable failure was a water system completed in September 1818. Using a water wheel from a stream south of town and a series of pumps, water traveled through wooden pipes to a water tower near the south side of the State House. From there, gravity fed a reservoir near Union Square. From the reservoir, gravity fed water to other parts of the city. The system was completed after about three years of work, and was an almost complete failure. The system was abandoned within a year or two. *Wake: Capital County of North Carolina, Vol. 1– Prehistory Through Centennial*, Elizabeth Reid Murray.

³⁴ With the development of cotton-jacketed hose in the 1880s, wagons could be used to transport hose instead of reels. Unlike rubber hose, which had to be wound on a reel, cotton-jacketed hose could be packed flat. Hose wagons could also carry more equipment and provided better riding positions than the older apparatus. See http://www.firehouse.com/magazine/american/apparatus.html for more information.

The Capital Hose Company was the most prominent of the newly organized companies. The first officers were F. H. Lumsden, Foreman; John T. Davis, First Assistant; J. W. Cross, Second Assistant; Will Rosenthal, Secretary; H. F. Smith, Treasurer; C. C. Hamlet, C. W. Carter, W. R. Bunch, and J. J. Whitehead, Nozzlemen; L. A. Mahler and R. K. Williams, Engineers. The company had 25 members and was housed at E. H. Lee's stables until a permanent engine house was erected later that year on West Morgan Street.³⁵ The company held another election of officers on Dec. 6, 1887, with F. H. Lumsden elected Foreman, John R. Ferrall elected first assistant foreman, John T. Davis elected second assistant foreman, Walter Woollcott elected Secretary, and H. F. Smith elected Treasurer. By this time, the fire company was housed in their new quarters and had appointed committees on uniforms and soliciting. The former was charged with providing "the ways and means for uniforming the company" while the latter would "present the claims of the company to the citizens" with "respectful requests for assistance."³⁶

The Capital Hose Company's engine house was located at 117 West Morgan Street, in a new building that adjoined the base of the new water tower. The first floor was divided into two rooms, one of which served as the principal office of the Raleigh Water Company. The other room housed the hand-drawn hose reel and was equipped with spring-loaded doors that automatically opened as soon as unlocked. The apparatus room was also equipped with a 40-candle power gas light that lit as soon as the doors were opened. The second floor was a large room that served as a fireman's hall. Closets were provided for uniforms and general outfits, and a number of cots were placed in the hall as at least one member slept at the engine house every night.³⁷ The building was owned by the water company, however, and the city paid a monthly rental fee for the hose company.

On Sunday, Jul. 3, 1887, the Raleigh Fire Department demonstrated their new capabilities for audiences on Fayetteville Street. Beginning with an inspection at 4:00 p.m. in front of the Market House, the exercise commenced with the Rescue Company hose reel running from the door of the telephone exchange to the hydrant at the Raleigh National Bank corner. The Rescue Company members attached and laid 200 feet of hose in the direction of Brigg's store, then detached the hose from the reel and affixed the play pipe. The Capital Hose Company ran from opposite David Rosenthal's to the hydrant at Stronach's lower store. They attached and laid 200 feet of hose in the direction of Williams & Haywood's drug store.³⁸

The Victor Company hose reel ran from the bridge in front of the Rescue Company engine house to the hydrant in front of the post office. They attached and laid 200 feet of hose in the direction of the courthouse. The Bucket and Ladder Company ran from the Yarborough House to the hydrant at the Citizen's Bank corner. They attached and laid 200 feet of hose in the direction of the Yarborough House. The companies each consisted of nine men carrying either 300 feet or 500 feet of hose. The members of the Chemical and Hook and Ladder companies reported to the Chief Engineer and acted as special police to keep the streets open from Citizen's Bank to Tucker's Store. Members of the Victor and Bucket and Ladder companies not running with the hose reels also reported for special police duties on Fayetteville Street from Martin Street to Davie Street.³⁹

Another group named the Independent Hose Company also formed in 1887. Like the Capital Hose Company, the "Independents" elected officers and maintained a roster of volunteers. On Aug 6, 1887, the *News & Observer* noted that "the company made enough money at a social last week to purchase a reel."⁴⁰ This was a hand-drawn hose reel, like the one used by the Capital Hose Company. On Feb. 10, 1888, the company petitioned the Board of Alderman to furnish a room for the fire company to use. The Board agreed to find a room at a cost of not more than \$3 a month.⁴¹ By February 1888, the fire company was housed in the Rescue

³⁵ News & Observer, Jul. 30, 1887.

³⁶ News & Observer, Dec. 7, 1887.

³⁷ News & Observer, Nov. 3, Dec. 7, 1887.

³⁸ News & Observer, Jul. 3, 1887.

³⁹ News & Observer, Jul. 3, 1887.

⁴⁰ Raleigh Fire Department, *Historical Sketch*.

⁴¹ News & Observer, Feb. 11, 1888.

Company station on Fayetteville Street.⁴² These were likely temporary quarters. By Apr. 28, 1888, the Independent Hose Company had moved to a rented building on East Morgan Street just east of Blount Street.⁴³

By Feb. 28, 1887, seven fire companies with 275 volunteer members were operating in Raleigh: the Rescue Company, the Capital Hose Company, the Independent Hose Company, the Phoenix Hose Company⁴⁴, the Hook and Ladder Company, the Victor Company, and the Bucket and Ladder Company.⁴⁵ The Phoenix Hose Company, also formed in 1887, soon disappeared from the rosters. Its members merged with the Capital Hose Company after Foreman E. B. Engelhard was appointed Chief of the Department.⁴⁶

One year later, an electric-telegraph fire alarm system was installed and the modernization of the Raleigh Fire Department was reflected in the city's second survey by the Sanborn Map Company. Their seven-sheet map of February 1888 listed a volunteer fire department of 200 men operating four hose carts, two hook and ladder trucks, one single-tank chemical engine, one double-tank chemical engine, one hand engine, and one steam engine. The new fire alarm system had 10 boxes and the new water system had 12 miles of water mains and 125 fire hydrants. ⁴⁷

By way of comparison, North Carolina's other major cities had fire departments of the following sizes: Asheville with 50 volunteers in 1891, Charlotte with 14 paid men and a volunteer company of 60 men in 1890, Durham with 85 volunteers in 1888, Fayetteville with 60 partly paid men in 1891, Greensboro with 3 paid men and 106 volunteers in 1888, New Bern with 158 volunteers in 1888, Wilmington with 13 paid men and 237 volunteers in 1889, and Winston and Salem with 40 volunteers and 20 paid men in 1890.⁴⁸

State Chronicle, Aug 30, 1889

The Agricultural and Mechanical College Damaged

Early Wednesday morning an alarm of fire was given by a citizen living in the western portion of the city. The fire was seen to be the Agricultural and Mechanical College. This made everybody nearly wild. After alarm for some time the Raleigh Chemical Engine arrived and the flames were quenched. The damage to the College will probably amount to \$1,200, covered by insurance. The repairs will be made immediately and the school will be in total readiness for the Fall term, beginning Oct 3d. The cause of the fire has been decided to have been the work of an incendiary. Such a person is too mean a subject for hanging. The meanest man in the world is one who will stick a torch to an institution built for the benefit of humanity and for the promotion of our country in every way. We sincerely hope that he will be traced up and dealt with to the full extent of the law.

With the new alarm system and new firefighting equipment, Raleigh's volunteers were faster and more effective. Even early morning fires brought a remarkably rapid response, as the Dec. 7, 1889 edition of the *News* &

⁴² Sanborn Maps, 1888.

⁴³ News & Observer, Apr. 28, 1888.

⁴⁴ Little information is available about the Phoenix Hose Company. A *Historical Sketch of the Fire Department of the City of Raleigh, N. C.*, a small souvenir book published by IAFF Local 548 for the occasion of a Raleigh Firemen's Victory Ball and New York Stage Show on May 15, 1944, notes "The Phoenix Company was composed of men, several of whom were connected with the promotion and operation of the Raleigh Water Company and included E. B. Engelhard, Ernest Bain, and Alexander Kreth." The book contradicts newspaper accounts of the time, claiming that the Phoenix Company had their reel stored in the building at the base of the water tower. It adds "when their foreman, E. B. Engelhard, was made Chief of the Fire Department, the membership merged with that of the Capital Hose Company." Engelhard was appointed Chief on Dec. 22, 1888.

⁴⁵ Annual Report, 1887.

⁴⁶ Raleigh Fire Department, Raleigh Fire Department 1984. Dallas: Taylor Publishing Co., 1984; Raleigh Fire Department, Historical Sketch.

⁴⁷ Sanborn Maps, 1888.

⁴⁸ Sanborn Maps, assorted years.

Observer noted: "The alarm of fire was turned in yesterday morning at 2:53 o'clock from Box 31. It was cold and most people satisfied themselves by turning over and feeling the wall to see if it was hot and then going back to sleep again. The first detachment of the fire department reached the fire in two minutes after the alarm. The fire was at a small store owned by Eliza Bishop, colored, and occupied by Andrew Mitchell. The fire was quickly drowned out and the damage was slight."⁴⁹

While the volunteer fire companies and their members were focused on fire suppression, the responsibility for fire prevention fell primarily upon the Fire Committee and the Fire Chief. They reviewed construction plans within the downtown fire district, and paid particular attention to building materials, heating and cooking sources, and stored combustibles. They also evaluated requests for hydrant installation and alarm box placement. Citizens and businesses were continually requesting new hydrants and alarm boxes. Some commercial firms paid for their own alarm boxes, while private hydrant systems, notably in areas outside the city limits, were common at this time. The Fire Committee and Fire Chief also proposed resolutions for life safety. One resolution was adopted by the Board of Alderman on Nov. 18, 1889 and required that stationary iron or steel fire escapes be placed on all buildings required by law, with one fire escape per area where 25 people gather. The escapes were required to be placed on buildings on or before Dec. 18, 1889.⁵⁰

Early Fires

By the 1880s, the era of destructive downtown conflagrations had passed. The great fires of 1832, 1833, and 1851⁵¹ were things of the past. Fires in the city proper were both better prevented and better controlled. Outside of the downtown fire district, however, larger blazes were battled such as Saint Augustine's Normal School on Mar. 6, 1883. The main building was discovered ablaze at 4:00 p.m. that Tuesday, from flames in a defective flue apparently having smoldered since the night before. Fanned by a lively breeze, as the next day's newspaper account noted, the building burned like timber. Since the school was beyond the city limits, the Mayor's permission was required before the fire department responded. The Rescue Company steamer, the Phoenix Company's single-tank engine, and the Bucket Company truck raced to the scene. The steamer was positioned at a bridge at the head of a lake, its suction hose dropped into a spring. Though plenty of water was available, the delayed response allowed the flames to gain plenty of headway. The steam engine also had some trouble during the incident, requiring the Engineer to repair some "disarranged" machinery. Firefighters were ultimately unable to control the blaze, which subsequently spread to four other wood buildings. Only one building, a dormitory, was partially saved. Teachers and pupils also saved both their personal effects and nearly all of the school's furniture. The fire was finally extinguished by 6:00 p.m. The loss was estimated at about \$16,000. Saint Augustine's was located one mile northeast of the State Capitol. The total attendance of the school, later named Saint Augustine's College, was 125 with some 80 boarders living on campus.⁵²

Two years later, the Art Gallery at Saint Mary's School burned in the early hours of **Jan. 6, 1885**. That day's edition of the *News & Observer* wrote "At 12:30 o'clock this morning the beautiful new art gallery at Saint Mary's was found to be on fire. The building was of wood, 80 x 50 feet, two stories high, resting on a brick foundation. In the basement was the heater, from which the flues ran in all directions. It appeared to be not a minute after the discovery of the fire that the entire interior of the building was a mass of flame. The alarm was given by telephone from Maj. R. S. Tucker's. The Rescue and double-tank chemical engines responded to the alarm. The building was connected with the other buildings by a covered-way, the roof of which was tin. Along this the fire soon swept and endangered the other buildings. The chemical engine did some work in checking it until after the roof and timbers of the burning building fell in. The east 'rock house' stands within about 60 feet of the burned building. Luckily this is entirely of stone, which a brick cornice and a tin roof, and though so greatly endangered did not catch and was not injured. The covered-way was not destroyed, the

⁴⁹ News & Observer, Dec. 7, 1889.

⁵⁰ News & Observer, Nov. 19, 1889.

⁵¹ On Jan. 7, 1832, fire destroyed 30 buildings. On Sep. 27, 1832, and Jun. 16, 1833, fire destroyed several buildings. On Dec. 15, 1851, fire destroyed more than 17 buildings.

⁵² News & Observer, Mar. 3, 1883.

Rescue getting on two streams and extinguishing the flames." Saint Mary's School was located seven-tenths of a mile west of the State Capitol and outside of the downtown fire district.⁵³

Another large fire occurred on **Mar. 27, 1887**, gutting the two largest buildings at the Raleigh Oil and Fertilizer Company at the corner of West Harrington and South Davie streets. Reported about 7:00 a.m., the roaring blaze also burned offices, seed sheds, and a seed meal storage room. A dwelling at the rear of the plant was also destroyed. Firefighters saved the guano house, however. Radiant heat drew rosin from fences 100 yards away, reported a newspaper account, and burned the tops of telegraph poles 50 yards away. The heat also distorted several feet of nearby railroad track. Several Victor and Bucket Company members were injured when the roof of a seed shed collapsed, and one was seriously hurt. Victor Company member Jordan Brooks was "badly scorched," noted the *News & Observer*, with "all of his hair burned off." One month later he was still suffering from his injuries and unable to return to his "daily avocation." Another colored firefighter suffered a broken finger while trying to pull down a wall. Losses at the mill were estimated at \$100,000.⁵⁴

On **May 7, 1888**, the Holman cotton gin burned in the southern part of the city. The alarm was reported from box 25 at the southwest corner of Wilmington and South Streets after residents spotted a black column of smoke in that direction. Following a crowd rushing in that direction, arriving firefighters found a brick structure burning just outside of the city limits. The hose reel companies combined several hundred feet of hose, connected to a hydrant inside the city limits, and subsequently controlled the blaze. The fire burned the roof and woodwork and also considerably damaged the equipment inside the building.⁵⁵

⁵³ News & Observer, Jan. 6, 1885.

⁵⁴ News & Observer, Mar. 27, 1887.

⁵⁵ News & Observer, May 8, 1888. Box location from News & Observer, Apr. 27, 1888.

Chapter 2- The Nineties, 1890-1899

1890 12,678 people and 1.8 square miles

Developments in Raleigh by 1890 included the first Southern Bell telephone exchange, the first electric power service, and the first street cars. The first trolley route was inaugurated Christmas Day 1886 with a muledriven street car. The first scheduled run started at 4 p.m. and the first car carried dignitaries from the Hotel Florence at Fayetteville and Davie toward Saint Mary's School. Also during the decade city officials voted to "macadamize" or pave Fayetteville Street, Oberlin Village was built and settled by freedmen or former slaves, and North Carolina College of Agriculture and Mechanics started classes on Oct. 3, 1889. The cornerstone for the main building, renamed Holladay Hall in 1915, was laid later that month. Six professors taught 45 students during the college's first year.

The fire department in 1890 consisted of six companies: the Rescue Company on Fayetteville Street, operating both a horse-drawn hose reel and their horse-drawn steam engine; the Capitol Hose Company on West Morgan Street, operating a horse-drawn hose wagon; the Independent Hose Company on East Morgan Street, operating a hand-drawn hose reel; and three companies at Metropolitan Hall, the Victor Company and their hand-drawn hose reel, the Hook and Ladder Company and their hand-drawn hook-and-ladder wagon, and the Bucket Company and their hand-drawn bucket-and-ladder truck. By that time, the Phoenix Chemical Company had disbanded and their two chemical engines were now in possession of the city.

The fire department answered 25 alarms during fiscal year 1890. In his annual report, Fire Chief Engelhard noted the loss was only "\$1,536.50, with nearly one-half of that loss caused by fires in stores with wooden doors or window shutters, thus the fire [was] not seen until burning for some time." He boasted that "not single house was destroyed." He also noted the need for a modern horse-drawn hook and ladder truck, citing 11 fires on the roofs of houses. The original hook and ladder wagon had already been "ordered sold" and would be disposed of as soon as possible. The Chief's report also cited that the Fire Committee Chairman had requested shut-off nozzles and relief valves for the hose reel companies, to prevent the excessive amount of water lost. With their hoses connected directly to the fire hydrants, water flow was controlled at the hydrant and not at the nozzle.

Improvements during the fiscal year included a new four-wheeled hose wagon, purchased for the city by the Capitol Hose Company.⁵⁶ With money raised at a fair, the Grand Rapids, Michigan-built wagon was named "Margie-Lillie" in honor of Captain John R. Ferrall's two little girls.⁵⁷ The city furnished one horse for the apparatus.⁵⁸ The Chief reported that a new life had been given to the department, in part due to the numerous apparatus and equipment upgrades such as the Capitol company's horse, a double set of drop harnesses for the Rescue Company steamer, and 500 feet of cotton hose. Concluding his report, Chief Engelhard again recommended shut-off nozzles for the reel companies as well as organization of a salvage corps for protecting property.⁵⁹

By Mar. 1, 1890, the Capital Hose Company had moved into new quarters on the other side of West Morgan Street. The one- and two-story wood-frame building was constructed by the city on rented lots, presumably in

⁵⁶ After years of utilizing a two-wheel hose reel, the Capital Hose Company purchased a horse-drawn hose wagon that they donated to the city. The Board of Alderman expressed their appreciation by adopting a resolution on Jul. 3, 1891: "Whereas - The construction in the city of Raleigh of one of the most beautiful as well as substantial hose carts for our fire department has been a saving of about \$400 to the business of the city, for, had it been constructed abroad, over \$400 would have gone to enrich others at our expense. Therefore be it resolved, _____ the thanks of this Board are due and the same are hereby tendered to Manufacturers Evans and Martin for their business _____ and pluck in securing the construct in competition with sense of the best equipped establishments in the United States. City Minutes, Jul. 3, 1891.

⁵⁷ Raleigh Fire Department, Historical Sketch.

⁵⁸ This hose wagon remained in service until the Raleigh Fire Department was completely motorized in 1915. ibid.

⁵⁹ City of Raleigh, Annual Reports, 1890.

conjunction with the fire company becoming horse-powered and thus needing a stable in addition to facilities for storing their apparatus. The building was also equipped with an alarm gong connected to the electric-telegraph fire alarm system.

The new engine house promptly had problems, as Chief Engelhard noted in this annual report dated Mar. 1, 1890. Along with Rescue Company quarters, the Capital hose house had a leaky roof. The building also needed painting. In addition to the rented lot housing the Capital Hose Company, the city was now paying rent for the Independent Hose Company. They were located in a house on Morgan Street just east of Blount Street. In April 1890, the monthly rental was \$18.75. By Mar. 1, 1891, however, the hose company had disbanded.⁶⁰

The Victor, Hook and Ladder, and Bucket and Ladder companies were still stored in the east end of Metropolitan Hall, but the Fire Chief's report of Mar. 1, 1890 noted that that end of the building was likely to be opened for other uses and that the apparatus would need to be removed. By Mar. 1, 1891, new quarters for the Hook and Ladder Company were constructed on West Morgan Street. The \$356.36 building, which included a half-stable as the company was now horse-drawn, was located next to the Capital Hose house and on the same rented lot. Also by March 1 of that year, the Victor Company had moved from Metropolitan Hall to the former quarters of the Phoenix Chemical Company at the corner of Davie and Salisbury Streets. The remaining fire company in Metropolitan Hall was the Bucket and Ladder Company. Though they may have moved to temporary quarters that year, they were disbanded upon recommendation of the Fire Commission in January 1892.⁶¹

On Jan. 8, 1890, the Victor Company presented an "elegant gold-headed cane" to Chief Englehard with the inscriptions "Chief E. B. Englehard from the colored fireman of Raleigh." The President of company was Jasper H. Jones, a former body service of late President Davis. For the ceremony, the firemen all appear in uniform.⁶² One month later, members of the Independent Hose Company presented a "handsome gold medal" to Chief Englehard during a February festival to raise month for a hose reel.⁶³ Later that spring, the Capital Hose Company sponsored a concert at Metropolitan Hall on Apr. 8, 1890. The program includes orchestra music, songs, instrumental solos, and "the ringing of the fire bells" by Alderman J. N. Holding. The Alderman tapped box number 34, which was the number near the Alderman's house. The newspaper account wryly noted that those attending surmised that he was learning how.⁶⁴

On Mar. 1, 1890, the two-horse hose reel was moved from the Rescue Company to Victory Company and likely replaced the Victor's hand-drawn hose reel.⁶⁵ On Mar. 7, 1890, the Fire Commission was authorized to sell both the 80-gallon chemical engine and the old hook and ladder truck at their discretion. Also in March of that year, Chief Engelhard visited New York City and examined the latest ladder trucks for the purpose of purchasing a new one.⁶⁶ Three months later, the new ladder truck was delivered. On Jul. 1, 1890, the *News & Observer* reported "A magnificent shiny, glossy, brand new, red and blue light service city hook and ladder truck arrived yesterday for the Raleigh Fire Department and at once became the cynosure of all eyes. She is a daisy and no mistake. She is forty-five feet in length from tip to tip and stands about eight feet from the ground. She carries thirteen ladders embracing a total of 210 feet of ladder, with all the necessary accompanying hooks, fire axes, buckets, Babcock fire extinguishers, etc. Altogether the machine is a thing of beauty and is light as a feather. It is drawn by two horses. She was placed regularly in service yesterday evening.⁶⁷ The

⁶⁰ City of Raleigh, Annual Reports, 1891.

⁶¹ On Jan. 8, 1892, the Board of Alderman approved the Fire Committee's recommendation that the Bucket and Ladder Company be disbanded and placed out of service, and its apparatus sold. The all-black fire company was formed in 1867. City of Raleigh, Minutes, Jan. 8, 1892.

⁶² News & Observer, Jan. 9, 1890.

⁶³ News & Observer, Feb. 27, 1890.

⁶⁴ News & Observer, Jan. 9, 1890.

⁶⁵ By Jan. 4, 1895, the Victor Company was horse-drawn as evident by the reported expense on that date of a horse purchased for \$150.

⁶⁶ News & Observer, Mar. 21, 1890.

⁶⁷ News & Observer, Jul. 1, 1890.

Hook and Ladder Company subsequently named the apparatus W. R. Womble for the Alderman and Chairman of the Fire Committee. 68

With most of the city's fire apparatus now horse-pulled instead of hand-powered, equestrian expenses were increasingly common. On Sep. 5, 1890, the Fire Committee reported that certain horses "employed in the fire department and in city work" were useless and they asked that they be replaced at a cost not to exceed \$400. The two horses for the Capital Hose Company were approved, along with a third for the Rescue Company.⁶⁹ On Jun. 6, 1891, the Fire Commission recommended two horses purchased for Rescue Company along with the purchase of collars and harness for both the Rescue and the Hook and Ladder companies.⁷⁰ Also during this period, Chief Englehard was reported as having a "road cart."⁷¹

News & Observer, Jul. 12, 1890

Fire Alarm

The alarm of fire sounded yesterday about 12:30 o'clock. The fire was soon located on East Hargett Street, and was found to be at the home of Mr. Z. T. Broughton. The department was quickly on hand as usual, and did not take many seconds to head off the flames. The building had caught in the cook-room, which is in the rear part of the house, the fire originating from the stove. Very little damage was done, with the exception of tearing off some of the shingles of the roof, which was necessary to get at the fire. This is another feather in the cap of Raleigh's superb fire department. It is getting to be proverbial that there cannot be a fire of any consequence in Raleigh.

As advances in technology increased the efficiency of fire suppression, changes to city ordinances increased the efficiency of fire prevention efforts. On Dec. 19, 1890, the city ordinances were amended as follows: "Chapter 4, Section 1 - No person shall erect any building or make any additions, alterations, or repairs to any building inside or outside, within the Fire District, as hereinafter designated, without first obtaining a written permission from the Chief of Police. No buildings of wood or any wooden additions, alternations or repair to any buildings shall be erected on the streets bounded by Morgan, Salisbury, Davie, and Blount Streets, nor shall any wooden buildings be removed from any other place to said squares except by consent of the Board of Alderman. Any person violating... The Chief of the Fire Department shall examine all buildings in course of erection, and any additions, alterations or repairs to any building... and report the result of his investigations to the Committee on Fire Department, who shall have the power and authority to enforce... Chapter 4, Section 7 - No sale of explosions without permission... No storage of more than 250 pounds of powder without permission... Chapter 5, Section 5 - The Chief of Fire Department shall inspect, at least four times each year, the buildings and premises within the squares bounded by... and report to the Committee... who shall have authority to order removed or properly stored or protected any combustible matter or other material endangering property from fire... Chapter 5, Section 20 - No one not a member of the fire department shall ride on any apparatus either responding or returning from an alarm of fire. No more than three members of any hose reel or wagon or four members of the hook and ladder company beside the Chief or Assistant Chief or driver shall ride, except by permission of Chief... Any officer or driver has the duty to report violations... Any violator shall be fined \$2 for each offense."72

At the end of fiscal year 1891, the fire department had 123 members. In his Annual Report of Feb. 29, the Chief Englehard recommended that the department consist of four hose reel companies with a total 3,500

⁶⁸ Womble died a year later on Nov. 23, 1891. Upon his death, the Board of Alderman ordered the city's engine houses to be draped in mourning for thirty days.

⁶⁹ News & Observer, Sep. 6, 1890.

⁷⁰ City of Raleigh, Minutes, Jun. 6, 1891.

⁷¹ City of Raleigh, Minutes, May 15, 1890.

⁷² City of Raleigh, Minutes, Dec. 19, 1890.

feet of hose; a hook and ladder company; a bucket and ladder company; and a salvage corps.⁷³ He reported that the steamer was kept in reserve, along with the old Victor hand engine and a hose reel with 750 feet of hose. He reported that the Independent Hose Company disbanded during the fiscal year and that two shut-off nozzles were purchased. His recommendations for future actions included shut-off nozzles for each fire company, overhauling of the Rescue steamer, installing tap bells in more members homes, attaching a key to each fire alarm box, and installing a repeater in the fire alarm system.⁷⁴

As the horses provided for the fire department were shared with other city departments⁷⁵, the City ordnance was amended on Jul. 2, 1891 to include "That the horses now used by the fire department, except the horses put under the control of the Chief of Fire Department, shall be under the control and management of the street department to the same extent as the other horses of the city under the following resolution. That one two-horse reel or wagon and 1,000 feet of hose be on duty at all times and at such other times as the Chief may think it necessary he may call in other teams, and that the horses of the Hook and Ladder truck be not allowed to work on the streets out of the following districts: Edenton, Cabarrus, Blount, and McDowell Streets. That the horses of one of the other reel or wagon teams not be permitted to work on the streets of the following on the streets must not be used as such beyond the sound of the fire alarm, and at the first sound of the alarm must be drawn with all possible haste to the engine houses and there placed under control and direction of the fire department until the return of the apparatus to the engine houses. 3. During the night the horses are to be kept at the engine houses ready to answer all alarms. The employment and wages of the ______, the purchasing of garage, and everything pertaining to the care of the horses shall be placed under the charge of the Street Committee and the Committee on Fire Department."⁷⁶

On Oct. 2, 1891, a resolution from the Fire Committee was adopted reading "the fire ordinances applying to the erection, alterations, repairing, etc. within the fire districts, of certain buildings be strictly enforced; and further urges that the Committee of Fire Department, would not permit the erection, alteration, etc. to buildings of wood, t___, or metal ____, insisting that if said ordinances were not strictly enforced that it would necessitate an increase of insurance rates. The resolution was influenced with input from Board of Underwriters.⁷⁷

Though the buildings on West Morgan Street housing both the Capital Hose and Hook and Ladder companies were serving their purposes, the city sought even better facilities for the fire companies. On Jun. 1, 1892, the City Alderman requested that the Fire Committee "report a proper site" for the two fire companies.⁷⁸ One month later on July 20, the Fire Committee was reported as considering purchasing the rented lots housing the two fire companies. They noted that the lots ran 52 1/2 feet on Morgan Street and were 105 feet deep, and that if the property were purchased it would require two lots.⁷⁹

On Jul. 4, 1892, the fire department performed a demonstration as part of the Independence Day festivities. At 5:00 p.m., an alarm was turned in from Box 23 and all the fire companies responded. Hose of the various teams was laid out between the Market House and J. Hall Bobbitt's drug store, with streams turned on in various directions. The alarm for direct pressure was subsequently sounded and the streams shot high into the air on Fayetteville Street. Other activities that day included the firing of cannon-crackers and attempts by young boys to climb a greasy pole in front of the post office. Two to three thousand people attended the various events that day.⁸⁰

After the Caraleigh Phosphate and Fertilizer Warehouse southwest of city burned on Aug 19, 1892, the issue of the fire department responding outside of the city was addressed by a City Ordinance amendment on Oc-

⁷³ It is not known if a fire department-sponsored salvage corps was organized or operated.

⁷⁴ City of Raleigh, Annual Reports, 1891.

⁷⁵ The horses of the fire company were also used for other duties, including pulling the sprinklers that watered the dirt streets of the city to keep the dust down.

⁷⁶ City of Raleigh, Minutes, Jul. 3, 1891.

⁷⁷ City of Raleigh, Minutes.

⁷⁸ City of Raleigh, Minutes, Jun. 1, 1892.

⁷⁹ City of Raleigh, Minutes, Jul. 20, 1892.

⁸⁰ News & Observer, Jul. 5, 1892.

tober 12. The amendment read "in case of fire outside of city limits, only one hose company will be allowed to respond, except in cases of immediate danger and absolute necessity, or when property within the city limits is endangered from fire outside of the city limits, the same to be designated and determined by the Chief of the Fire Department."⁸¹

On Feb. 2, 1894, a gong for the Victor Company house was approved. Also on that date, street work was approved for both the front and near the Capitol and Hook and Ladder houses on West Morgan Street.⁸² On Mar. 4, 1895, the Fire Commission was instructed to consider placing the old Phoenix Chemical Company double-tank chemical engine in service with Victor Company.⁸³ There is no record that the consideration was enacted as an action.

On Apr. 5, 1895, the Fire Commission recommended both its usual upgrades– repair the roof of the Victor House, install new doors and frames at the Rescue House– and a new construction item. The Commissioners sought a new building built for the fire department on Morgan Street. All of the requested items were approved, including the authorization to accept bids for the new fire department building with construction costs not to exceed \$4,000.⁸⁴ On July 5, the bid for the new building was awarded to Hicks, Ellington, and L___. The building would replace the engine houses of the Capital and Hook and Ladder Companies and the Fire Commission was authorized to make the necessary arrangements "for care of apparatus" during the construction.⁸⁵ By January 1896, a temporary "hook and ladder house" was being used just west of the building site.⁸⁶

Completed in January or February of 1896, the new headquarters fire station was addressed 112 W. Morgan Street. The two-story brick building had three bays as well as tower for drying hose. Upstairs, the facility include sleeping quarters, a recreation room, and an electric room housing the equipment of the fire alarm system. Though called a headquarters station in news reporters, the building was more commonly called the Capital Hose Company house. One year later, the Fire Commission was again looking to improve fire department facilities. On Mar. 5, 1897, the members asked for authorization to purchase a suitable piece of property to permanently building and locate the Victor Fire Company. One month and two days later, however, the need for a permanent building became dire when the Victor Company station caught fire.

The April 7 blaze partially consumed the building along with a pair of horses, a hose reel, and 100 feet of hose. Started when one of the lanterns on the reel exploded, the flames were quickly extinguished by the nearby Rescue Company.⁸⁷ With the destruction of the station house, the Fire Commission recommended the immediate purchase of a pair of horses and wagon, and that the city purchase a lot and erect "permanent quarters" as early as possible. The fire company, meanwhile, was housed in a rented warehouse by June 30 of that year.⁸⁸ On Feb. 28, 1898, a corner lot at 135 E. Hargett Street was purchased.⁸⁹ On April 2 of that year, the fire company moved into their new quarters. The two-story brick station measured approximately 2,000 square-feet and cost \$2,900 including the \$800 lot purchased in February.⁹⁰

⁸¹ City of Raleigh, Minutes.

⁸² ibid.

⁸³ City of Raleigh, Minutes, Mar. 4, 1895.

⁸⁴ City of Raleigh, Minutes.

⁸⁵ ibid.

⁸⁶ Sanborn Maps, 1896.

⁸⁷ News & Observer, Apr. 8, 1897.

⁸⁸ City of Raleigh, Minutes.

⁸⁹ ibid.

⁹⁰ News & Observer.

News & Observer, Apr. 8, 1897

THE FIRE LAST NIGHT

The Victor Engine House is Badly Damaged

HORSES BURNED TO DEATH

THE FLAMES STARTED FROM AN EXPLODING LAMP

The Loss is Between \$500 and \$1,000 - The Victor Reel Was Not Ruined But is Badly Damaged

The criminal negligence of Joe Penny, one of the night watchmen at the Victor Hose Reel engine house, cost the city upwards of \$1,000, to say nothing of what might have proved a disastrous fire and the pitiable spectacle of seeing two fine horses burned to death.

The Victor engine house is at the corner of Salisbury and Davie streets- a low, rambling frame building. It is divided into three rooms. In the front one, opening on the street, is the hose reel. And here stand, day and night, two of the largest and finest fire engine hoses in the State.

Those at night are in charge of two Negro men, Henry Sorrell and Joe Penny. They are expected to be on duty every minute of the night, and at the first tap of an alarm, hook the horses to the reel. Under no circumstances are both of these men to leave the building at the same time.

Last night, however, a lamp on the reel exploded. Nobody was in the building. In two minutes time, the whole interior was a mass of flames. The horses uttered terrified neighs, but no one came to their rescue. Henry Sorrell had been granted permission to attend a fireman's meeting at Metropolitan Hall, and Joe Penny- nobody knows where he was. He says he had gone to another part of the city lot, but few believe his story.

The first to discover the fire was Ceburn Tate, an old Negro living near by. He heard the frantic kicks and terrified yells of the horses, and tried to open the door, but failed. He kept all the while yelling fire at the top of his voice. The firemen at the Rescue Hose building heard him, and at once came to the rescue. The engine was already on the street before the alarm was turned in my Mr. Joe Correll, who saw the flames from Fayetteville Street. This brought out the other fire companies, and the flames were quickly extinguished.

Before helped could reach the place, however, and the doors could be broken open, the noble horses confined within had fallen and perished in the flames.

They fell in such a position as to indicate that to the last they were faithful to their duty, and just ready to spring whenever the door, in response to the clanging alarm, should fly open. After the fire the odor of burning flesh could be easily detected at some distance from the scene of the fire.

The loss is between \$500 to \$1,000. The horses were valued at \$350. The damaged to the reel, including 200 feet of injured hose, is about \$150. The harness and other articles burned were worth about \$100, exclusive of damage to building.

The injury to the building, which is hardly worth \$100 at best, is difficult to estimate, as it is probable that it would soon have been torn down or the use of it discontinued, as the Fire Committee is now preparing to buy a lot and put up a handsome new home for the Victor Company.

The last Sanborn fire insurance map of the 19th century dated January 1896 described a paid and volunteer department with a Chief, Assistant Chief, and 117 men. The department operated from four fire stations, with each driver "paid and on constant duty." An extra paid man was housed at each station "from 9 until morning." Rolling stock including two two-horse hose wagons, one two-horse hose reel, one two-horse hook and ladder truck, and the Gould steamer in reserve. Some of the horses, however, were used for street maintenance during the day. The fire alarm system had 27 boxes, with 37 volunteers possessing tap bells in their

rooms. The water system included the 125,000-gallon water tower on Morgan Street, 151 double hydrants, and nine underground cisterns with an average capacity of 40,000 gallons.⁹¹

In fiscal year 1898, the fire department answered 50 alarms. Fire losses totaled \$12,889.⁹² At the end of fiscal year 1899, the fire department had 90 members and eight horses. The four fire companies answered 36 alarms as of Feb. 28, 1899. Total losses amounted to \$1,244.03, with insurance covering \$1,197.03. Fire apparatus included three two-horse hose wagons, each equipped with 1,000 feet of rubber-lined cotton hose, a two-horse hook and ladder truck, and the two-horse Gould steam engine in reserve.⁹³

With the steamer in reserve status, the Fire Committee recommended a reduction of pay for the department's Engineer of Rescue Steamer. They noted that the steamer had only been used four times since installation of the water system in 1887. Instead of a \$100 per year salary, they recommended \$75 per year to keep the steamer in order and test when necessary, or when called for by Chief. If steamer is placed in service, however, the Engineer would be paid \$25 each time.⁹⁴

Later Fires

The newspaper headline "destructive fire" was common for any blaze that destroyed one or more buildings, as happened in Raleigh's suburban area on **Jan. 31, 1890**. The Temple store and dwelling on Hillsboro Road caught fire between 1:00 and 2:00 a.m. Mrs. Temple was asleep in the residential part of the building and awoke after hearing something "fall very heavily." Moments later she was alerted to the fire and had barely escaped the house when burning timbers began to fall. The fire, believed to have started in the kitchen from a stove flue, was first seen by President Holladay of nearby A&M College. He sent a messenger to "alarm the inmates" and soon most of the college boys were on the scene, some both bare-handed and barefoot. They were unsuccessful at combating the blaze as was the fire department, as the buildings were located considerably beyond the city limits and any fire hydrants. Some furniture was saved, however, including most of the bedding. A small stock of merchandise was destroyed.⁹⁵

The first major fire of the decade occurred on **Dec. 28, 1890** when the Raleigh and Gaston Railroad roundhouse at the corner of Johnson and North Salisbury streets burned. The alarm was received at 2:17 a.m. from Box 47. All four hose companies, the hook and ladder company, and the steamer responded to the one-story brick building. Arriving within three minutes of the initial alarm, firefighters found only one working hydrant. They used 2,850 feet of hose for three streams, as well as supply lines to the nearest underground water cistern. When the first stream was finally flowing, the roundhouse was already lost and the firefighters concentrated on preventing flames from spreading to other structures. Damage totaled \$17,500, including 17 locomotives. The fire was caused by waste thrown in a thrown in a locomotive tender filled with wood.⁹⁶

Two days later, the *News & Observer* printed a letter from Chief Englehard remarking "The pluck of the Raleigh Fire Department was put to a severe test at the Sunday morning fire at the Raleigh and Gaston new roundhouse. The night was one of the coldest of the winter, and the hour was the most unchristian at which a fire could impossibly have occurred. Any body who thinks it is fun to do duty on a hose team on such a night, with the very spray of the water freezing in the air and with a hat freezing on a man's head ought to try it, that's all. But the Raleigh department was on hand and turned on water within three minutes." The paper also included letters from the General Manager of the railroad, the Mayor, and Fire Chief to the Mayor.⁹⁷

⁹¹ Sanborn Maps, January 1896.

⁹² City of Raleigh, Annual Reports, 1898.

⁹³ City of Raleigh, Annual Reports, 1899.

⁹⁴ City of Raleigh, Minutes, Jul. 1, 1898?

⁹⁵ News & Observer, Feb. 1, 1890.

⁹⁶ News & Observer, Dec. 30, 1890.

⁹⁷ News & Observer, Dec. 30, 1890.

The Caraleigh Phosphate and Fertilizer Warehouse southwest of Raleigh was destroyed by fire on Aug 19, 1892. Discovered just after dark in the acid chambers, a "mammoth structure" measuring 250 feet long and 60 feet high, the blaze began in a burner room used for making sulfuric acid. Several fire department members responded and assisted, though they were unable to take their apparatus outside of the city limits. The company, located past the Insane Asylum on Asylum Road, had a \$5,000 water system with seven hydrants and a pump. After the pump became disabled, the firefighters relied on gravity-fed pressure from the 10,000-gallon tank on top of the manufacturing mill. By 9:30 p.m., the entire structure was in ruins. The entire building and its contents were destroyed, with an estimated \$25,000.⁹⁸

Over 4,000 tons of sulfuric acid spilled onto the ground during the fire and likely soaked into the water table. Seven years later, problems with the city water supply were reported. During a special meeting of the Board of Alderman on Mar. 10, 1899, the Committee of Physicians reported that water supplied by the Caraleigh Phosphate Mills was contaminated. They cited the cause as either the 1892 fire or the tipping over of a large vat in 1898. The physicians reported that the contaminated water was in their opinion "injurious to health, and unfit for domestic use" and while "causing disordered digestion and bowel disturbances" was not necessarily "dangerous life." They recommended that the city's water supply pipe running through that area be relocated a safe distance from the contaminated area.⁹⁹

News & Observer, Apr. 16, 1896 MUCH ALARM - LITTLE FIRE

At three o'clock yesterday afternoon there came an alarm of fire from box No. 12, corner of Polk and Person streets. People paused for a moment to watch the fire trucks rattle by, and then started about their business. They knew the ability of the home department and didn't worry. But then came in a second alarm. Someone looked over in the northeast section of the city and save hovering there a cloud of black smoke. Then a rush commenced. Fire engines and hose reels went pelle melle through the streets. People rushed pantingly along the sidewalks; hackmen hit their galloping horses viciously in their haste. Everybody went to the fire on foot, on horseback, in carriages, street cars, and on bicycles. Another alarm came in; excitement naturally increased. But the alarm was about all there was to the fire. At the house of Mr. W. S. Barnes on East Street, a chicken house was utterly consumed. A lady hen received a severe shock to her nervous system, and had her unhatched brood prematurely fried.

One of Raleigh's oldest houses burned on **Nov. 10, 1895**. Built before 1820 and located on Fayetteville Street near the corner of Davie Street, the wooden structure was reported ablaze about 7:00 p.m. on a Sunday night. Within thirty seconds of the fire bell's ringing, the Rescue Company hose wagon reached the nearest hydrant. The fire was located in the garret, between the last story and the roof, and the firemen battled the blaze for about an hour before extinguishing. One fireman had just returned from his bridal tour and was given the "cheerful duty" of holding the hose. Another fireman lugged a line up to the roof and, when he reached the curb, he "had the pleasure" of having his face washed with 120 gallons of Walnut Creek that spouted from a hose on the other side. The newspaper accounts of the incident included information about the house. Between 1835 and 1840, its occupant was an old man named John Hinton and "of whom many queer stories were told."¹⁰⁰

The Seaboard Air Line Railway machine shops on Johnson Street burned on Apr. 22, 1896. The fire was discovered at 4:45 a.m. on a Wednesday morning by the night watchman. He aroused the night yardmaster and other employees, who tried to reach the fire hose and pump at the machine shop. With no key to the building and unable to break the door, they pulled a city alarm box. The engineer of the switching engine

⁹⁸ News & Observer, Aug. 19, 1892.

⁹⁹ News & Observer, Mar. 11, 12, 1899. No corrective action was taken for decades. In 1985, a North Carolina State researcher tested the city's drinking water by filling a pool, placing fish in it, and observing them promptly dying. Each time it rained, he concluded, sulfuric acid leached into the city's water supply and produced enough acid to kill fish. Lancaster, Marshall. *Raleigh: An Unorthodox History*. Asheboro: Down Home Press, 1992.

¹⁰⁰ News & Observer, Nov. 12, 1895.

also began blowing the whistle to alert others of the fire. Within three minutes of the alarm being transmitted Raleigh's fire companies were on the scene. Firefighters were unable to save the building, so attention was turned to saving the railroad cars and other structures near the shop.

One group of firemen directed a steady stream of water upon the roundhouse, which was located at the northern end of the shops. Other firefighters were protecting an oil tank, railroad cars, and buildings on the west side of the fire. The most heroic fight, however, was fought at the northwest corner of the burning structure. Hundreds of thousands of dollars worth of property was endangered by a small building containing 40 to 50 barrels of oil. If the barrels ignited, the exploding oil would consume everything in the vicinity. The volunteer firemen stood their ground, in spite of the intense heat of the wind-fed flames. Ultimately, the fire was confined to the machine shop, though sparks and burning embers were carried nearly a mile away by the wind. By 7:30 a.m., only smoking beams, bare walls, and exposed machinery remained of "one of the best-equipped railroad shops in the South." The loss was estimated at \$65,000. One-hundred and fifty workers were employed at the facility.¹⁰¹

The Raleigh Street Railway powerhouse and street light plant, and car shed burned on Dec. 31, 1897. The fire was reported from Box 23 and as the first clang of the alarm bell sounded, the electric lights of the city snapped off. The city's streetcars also stopped worked. People rushed outside and into the streets and in the northwest part of the city they saw a "great lurid light." The railway company building at the corner of Edenton and West streets was ablaze. Though the first fire engine arrived within three minutes of the initial alarm, the wood-frame structure was beyond saving. It "burned like a tinder box," with its tin roof preventing water from getting to the fire. Within fifteen minutes of the alarm, four "huge streams of water" were playing on the building and without apparent effect. Three others were added, but the seven streams only seemed to "add consuming powering to the conflagration." Though unable to save the powerhouse, firefighters did protect exposures. Two cottages near the burning building suffered slight damage. By 11:00 p.m., the building was a "blackened ruin." Nine street cars were destroyed, along with four engines, three boilers, five dynamos, and assorted other equipment. Several tons of coal was destroyed. The total was \$50,000, with only \$12,500 of the amount insured. The electric plant supplied power to some 2,000 lights in the city including the State Capital, the Supreme Court building, and the Governor's mansion. Those and others would now have to depend upon the Raleigh Gas Company's electric plant. It was estimated that several months would be required before the street cars would be operational again.¹⁰²

¹⁰¹ News & Observer, Apr. 23, 1896.

¹⁰² News & Observer, Jan. 1, 1897.

Chapter 3 - Water, Electricity, and Insurance Maps

Water System

After abortive attempts in earlier decades at supplying the city with a reliable water system, water mains and fire hydrants were installed in Raleigh in the late 1880s. On Nov. 11, 1886, a contract was signed with the National Waterworks Company of Dayton, Ohio, to construct and maintain a public water supply. Operated by a privately-owned franchise that billed the city and its residents, the system draw water from Walnut Creek near the Asylum Road.¹⁰³ Located above possible contamination sources, water from the creek was conducted through 14 and 15-inch pipes to a pump house at the site of Jones Mill. The supply line included a filtration system consisting of three sand pits to clean the water as well as wire strainers to prevent fish from entering.

On the north side of the pond, a 1,832,000-gallon reservoir was built. Water entering the reservoir was cleaned with a system of charcoal and gravel filters. The pump house was brick with stone foundations and equipped with duplex compound-condensing pumping engines. The aggregate capacity of the pumps was 2,052,084 gallons per day. Two boilers powered the pumps, which carried the water to a stone and brick tower on West Morgan Street. The iron tank at the top of the water tower held 101,516 gallons.¹⁰⁵

For fire protection, the water system was equipped with 120 double hydrants. Firefighters could now connect their hoses directly to hydrants and without needing a fire engine at the scene to pump water. The pressure in the system was sufficient for most blazes, though "direct pressure" was available for larger fires. To increase the pressure, the water tower was excluded from the system and the resulting higher pressure from the pump house passed directly to the hydrants.¹⁰⁶

The water system's firefighting capabilities were tested on Sep. 28, 1887. The city required that the system power six separate streams from hydrants located in the business district, through 50 feet of hose and a one-inch nozzle, or maintain the equivalent pressure at the hydrant. A second test required that the system power four streams through 100 feet of hose. The first test was performed using hydrants on Fayetteville and Hargett streets. The second test was performed in each of the four corners of the city. During the second test, six streams were powered for three-quarters of an hour to an average height of 119.5 feet, providing two more streams and 19.5 more feet than required.¹⁰⁷ At a meeting of the Board of Alderman on October 3, a resolution was passed declaring the system in service on Oct. 1, 1887.

By the end of fiscal year 1890, the number of public and private fire hydrants totaled 125, with pressure from 50 to 75 pounds per square-inch. Nine older fire cisterns with capacities between 30,000 and 50,000 gallons were also kept filled.¹⁰⁸ By the end of fiscal year 1891, the water system had a daily capacity of 4,000,000 gallons. Hydrant pressure varied from 50 to 75 pounds per square-inch, with "direct pressure" for emergencies available from 85 to 115 pounds. There were 123 public and four private hydrants at that time.¹⁰⁹

In the spring of 1896, new water pumps were installed. On March 23, the capacity of the new pumps was demonstrated on Fayetteville Street. Firefighters responded to a test alarm from box 212 and attached their hose to the hydrant. The gravity pressure was measured at 50 pounds per square-inch. When "direct pressure" was requested and the new pumps were activated, a pressure of 100 pounds per square-inch was produced.

¹⁰³ Asylum Road was later named Rhamkatte Road.

¹⁰⁴ City of Raleigh, Annual Reports, 1887.

¹⁰⁵ ibid.

 ¹⁰⁶ ibid.
 ¹⁰⁷ News & Observer, Sep. 29, 1887.

¹⁰⁸ City of Raleigh, Annual Reports, 1890.

¹⁰⁹ City of Raleigh, Annual Reports, 1891.

The increased pressure was deemed "strong enough to cope with any emergency the department would be called upon to meet." 110

Fire Alarm System

Raleigh's fire alarm system in the early 1880s consisted of a bell housed in the clock tower of Metropolitan Hall.¹¹¹ The bell rang in a series of one to five times, based on the location of the fire. The city was divided into four wards, with Fayetteville Street designated a fifth ward. In 1888, the installation of an electric-telegraph fire alarm system improved the response of firefighters. Ten alarm boxes were connected to an electromechanical striker on the clock-tower bell by a low-voltage electric system. Activating a "street box" started a spring-wound mechanism inside the alarm box that transmitted the designated number of electrical pulses to the bell striker. Citizens reported fires at one of ten alarm boxes, which caused the alarm bell to chiming the box number. Firefighters could now respond directly to location of the person reporting the fire.

After demonstrations in November and December from the Gamewell Fire Alarm System, the Richmond Fire Alarm System, and the Union Fire Alarm System¹¹², among others, a contract was signed with Gamewell on Dec. 10, 1887. The \$2,890 contract was for the installation of ten non-interference fire boxes with poles, gongs, strikers, and everything necessary for "a complete system of ten boxes."¹¹³ As the Gamewell representative noted in early demonstrations, the system could be converted into a police alarm system as well. He stated that a "child of ten" could easily turn in alarms, and added that the non-interference feature assured that alarm from one box could not be broken or interrupted by activating another box.¹¹⁴ One hundred and fifty telegraph poles were installed, with materials shipped from New York.¹¹⁵ The first superintendent of the system was Mr. Robinson, the manager of Raleigh's Western Union Telegraph office. He volunteered his services for the first year without charge.¹¹⁶

Ten alarm boxes were located throughout the city, each causing the near-instantaneously sounding of the bell at Metropolitan Hall. The box number was signaled for the entire city to hear.¹¹⁷

- Box 13, southeast corner Johnson and Halifax streets.
- Box 14, southwest corner Oakwood Avenue and Person Street.
- Box 15, northwest corner Edenton and East streets.
- Box 23, northwest corner Martin and Wilmington streets.
- Box 24, northeast corner Davie and Bloodworth streets.
- Box 25, southwest corner Wilmington and South streets.
- Box 31, southwest corner Davie and Dawson streets.
- Box 32, southwest corner Hillsboro and West streets.
- Box 41, west side of Dawson Street between Jones and Lane
- Box 42, northwest corner of Halifax and Edenton streets.

¹¹⁰ News & Observer, Mar. 24, 1896.

¹¹¹ Cast in Baltimore, Maryland, the bronze bell was moved to the roof of the tower at Station 1 on West Morgan Street in 1914 when Metropolitan Hall was demolished. The bell remained at that location until 1938, when the tower was demolished to accommodate construction equipment for an addition to the adjacent Revenue Building. *Raleigh Times*, Mar. 9, 1938. Around 1948, the bell was installed atop Withers Hall at State College. It serves as a replacement for the steam whistle used to signal students. Its origin was discovered in 2007 by a graduate student. The bell was removed from the building and returned to the fire department in 2008. Legeros, Raleigh Fire Department History.

¹¹² News & Observer, Nov. 15, 19, Dec. 3, 8, 1887.

¹¹³ News & Observer, Dec. 10, 11, 1887.

¹¹⁴ News & Observer, Nov. 23, 1887.

¹¹⁵ News & Observer, Feb. 5, 1888.

¹¹⁶ News & Observer, Apr. 17, 1888.

¹¹⁷ News & Observer, Apr. 7, 27, 1888.

The first alarm was struck on Apr. 27, 1888 from Box 42 at the northwest corner of Halifax and Edenton Streets and across the street from the State Capitol. This was a test alarm and fire department members were not notified ahead of time. All five fire companies answered the alarm, with the Capital Hose Company arriving first. Reaching the scene in one minute and 40 seconds, the hand-pulled hose reel company was flowing water within another 32 seconds. The Victor Company arrived next, within four minutes and 20 seconds. The Independent Hose Reel Company arrived within four minutes and 30 seconds. The Rescue Company was also on scene within four minutes and 20 seconds. The Phoenix Chemical Company arrived within 11 minutes. The horses that drew the double-tank chemical engine were at Rocky Branch, a mile from the city, when the alarm sounded. Within five minutes of the fire alarm, three streams of water were spraying.¹¹⁸

For the first few years of the system's operations, the alarm boxes were also locked. Key locations were listed on each box and included nearby businesses, offices, and residents. To report a fire, a citizen had to locate both the nearest alarm box and the person possessing the box key.¹¹⁹ The locked alarm boxes often caused delays in reporting fires. By March 1891, Chief Engelhard recommended that the keys be left with the boxes to improve response times. He noted the potential for false alarms, but suggested that a strict law, rigidly enforced, would put a stop to such offenses.¹²⁰

A second lock opened the inner portion of the alarm box which contained the spring-wound mechanism. After a box was used to report an alarm, the mechanism was rewound by a member of the fire department. The innards also contained a telegraph key for firemen and other officials to communicate special signals. They included "one blow" signaling a test of the line, "two blows" calling for direct pressure on the water system, "two blows repeated three times" calling for increased pressure on the water system, "three blows" signaling that the fire was under control, "four blows" signaling that direct pressure on the water system was activated, "seven blows" calling for a general alarm, "ten blows" calling for the police, and "twelve blows" signaling for the Superintendent of the Fire Alarm System.¹²¹

News & Observer, Apr. 27, 1888

KEY HOLDERS

Will be particular to observe the following directions.

To give an alarm, open the door, pull the hook to the *bottom* of the slot *only once* and let go. If the small bell in the box is ringing, do not pull the hook, as this indicates that an alarm has already been sent in from another box.

Be particular to *remain* at the box until some officer of the fire department or some piece of apparatus arrives.

Never give your key to an irresponsible person.

Never open the door except to give an alarm of fire.

Always send in the alarm from the box nearest the fire.

The May 1, 1888 edition of the News & Observer applauded the new system: "The sound of the fire alarm roused the city Sunday night about midnight and from the tap of the bell which showed that the alarm was

¹¹⁸ News & Observer, Apr. 28, 1888.

¹¹⁹ News & Observer, Apr. 1, 1888.

¹²⁰ City of Raleigh, Annual Reports, 1891.

¹²¹ News & Observer, Apr. 27, 1888.

sent in from box 41, the fire was soon located and it was found that the kitchen of Mr. John Beckham on Dawson Street was in flames. Mr. Beckham's residence and other residences which were near at hand were greatly endangered by the fire, but here again the value of the fire alarm system and the efficiency of our fire department were quickly demonstrated. Within five minutes from the first tap of the bell, two streams of water were in full play upon the burning building and before the same length of time had again elapsed, the stroke of the bell announced the fire was under control. The flames were quickly extinguished and what might have proved a serious conflagration ended in a few charred timbers and a harmless column of smoke. Three cheers, we say, for the fire alarm system and three cheers more for our magnificent fire department."¹²²

The fire alarm system was used sparingly in its first years, with only two box alarms reported in fiscal year 1887, 14 in fiscal year 1888, and 18 in fiscal year 1889.¹²³ Regular tests of the system were also performed. The Nov. 1, 1889 edition of the *News & Observer* noted this announcement from Chief Engelhard: "Beginning Monday, November 4th, and on each succeeding Monday at one o'clock, two rounds of a fire box will be turned in. The alarm is given to test boxes and to practice drivers in their duties. Members of the department are not expected to answer these alarms. Should a regular alarm (four rounds) come in from a different box after the test alarm has come in, then the department will report to this box immediately. By order of Committee of Fire Department."¹²⁴

By December 18 of that year, the system was expanded from ten to eighteen boxes. Listed by their ward locations, the expanded system consisted of:

First Division	East of Halifax Street and north of New Berne Avenue. Boxes begin with the number 1.
Second Division	South of New Berne Avenue and east of Fayetteville Street. Boxes begin with the number 2.
Third Division	West of Fayetteville Street and south of Hillsboro Street. Boxes begin with the number 3.
Fourth Division	North of Hillsboro Street and west of Halifax Street. Boxes begin with the number 4. 125

By Mar. 1, 1890, the alarm system included a gong in the Capital hose house and a tap bell in the home of the Assistant Chief. Additional, six members of the fire department had also installed tap bells, which were small table-mounted gongs, in their homes at their own expense. The wires for the alarm system were strung like cobwebs throughout the city and their low-voltage wires were often uncovered. The susceptibility of the bare wires to interfere was addressed on Dec. 19, 1890, when the city charter was amended to help protect the delicate system: "Section 21 - No wires can be erected that interfere with fire alarm or police telegraph." The amendment also included a requirement that utility companies "install a gong in their power stations, so firefighters could transmit signals requesting that electric current be cut off." ¹²⁶

By Mar. 1, 1891, each fire company had a gong in their engine house. Tap bells had also been installed in the homes of the Fire Chief, Assistant Chief, the Rescue Company Foreman, the Capital Company Foreman, and several members of the fire department. Though the engine houses had gongs, the bell at Metropolitan Hall still sounded. Not surprisingly, the Board of Alderman adopted a Fire Committee recommendation on

¹²² News & Observer, May 1, 1888.

¹²³ City of Raleigh, Annual Reports, 1887, 1888, 1889.

¹²⁴ News & Observer, Nov. 1, 1889.

¹²⁵ News & Observer, Dec. 18, 1889.

¹²⁶ City of Raleigh, Minutes?

Jul. 1, 1892 that "the general fire alarm be rung only between the hours of 10:30 p.m. and 7 a.m., and in no case in there is a public meeting or theatrical performance at Metropolitan Hall." Between the increasing numbers of tap bells in fireman's homes and the gongs at the stations where members slept overnight, the need for city-wide alarm at night was neither necessary nor welcome. And if firemen used the telegraph keys at street boxes to signal status or special request, the bell rang again during these transmissions.

On May 19, 1891, small wooden boxes were added to each of the alarm box poles. Painted blue and having a glass front, the boxes each contained a key to the adjacent alarm box. The keys and boxes were added at the recommendation of the Fire Chief, who made the suggestion in his prior year's annual report. The next day's *News & Observer* advised the operation instructions: "break the glass front to key box, remove the key, unlock the fire box, pull down once and let go." The newspaper also reprinted the sections of the city ordnance relevant to the reporting of false fire alarms.¹²⁷

On Oct. 7, 1892, the purchase of a four-circuit repeater for the alarm system was approved by the Board of Alderman. The Fire Committee reported on December 2 that the repeater arrived the day before and would be installed the following week. The committee also requested the placement of tap bells in the homes of four members from each company, plus one in the home of the steamer engineer. They said this action would improve the response to nighttime fires. They did not, however, advocate a return to the general alarm sounded by the city bell.

In addition to the tolling of the city bell during daylight hours, other gongs were heard on Raleigh's streets during the Nineties. On Jul. 7, 1893, the Fire Committee requested that the street cars use different alarms than the one sounded by the city bell. The tolling trolleys were apparently leading to some confusion. The Fire Committee also kept an eye on the integrity of the alarm system, recommending an ordinance adopted on Aug 3, 1894 that fined anyone "who erects, maintains, or operates a telegraph, telephone, or electric wire that endangers or interferes with fire or police telegraph system." In additions to the boxes installed on street corners or those privately purchased by commercial facilities, other institutions invariably requested their own connections to the system. A request from the Insane Asylum, for example, was referred to the Fire Committee on May 24, 1895.¹²⁸

Upon completion of the new fire department headquarters on West Morgan Street in the spring of 1896, a fire alarm system switchboard and storage battery was installed. The storage battery was made by the Storage Battery Company of Philadelphia, and Raleigh was the first city in America to install a new storage-battery system in conjunction with a fire alarm system. The new technology saved 80 percent in the cost of maintaining batteries for the alarm system and would pay for itself within three years. A description of the alarm system appeared in the 1896-87 *Raleigh City Directory*: "All the fire-alarm wires that radiate over the city lead directly to the new building on Morgan street, where the battery system is located. The switchboard is made of slate, and is arranged with a lamp rheostat, an automatic cut-out, a polarized relay or switch, an ammeter and voltmeter, and a switch for the changing of from set of batteries to the other with just one move."

By Mar. 1, 1898, the fire alarm system consisted of 28 boxes. During the previous fiscal year, a gong had been added at the pumping station. This provided faster responses to requests for direct pressure. By March 1 of the following year, nearly all of the alarm wires were transferred to telephone poles. Three years later, the wiring was overhauled with a half-mile of No. 10 copper wire and a half-mile of No. 8 iron wire. New poles were replaced, along with 40 new "cross arms and braces." The system was reported as overhauled on Oct. 5, 1901.

Sanborn Fire Insurance Maps

Raleigh's fire risks and protection measures were documented during this period with a series of thematic maps produced by the Sanborn Map and Publishing Company. Created for the purpose of assigning fire insurance ratings, Sanborn Maps included a detailed urban plan as well as short narrative describing firefight-

¹²⁷ News & Observer, May 20, 1891.

¹²⁸ In the 1890s, the engine houses were not connected with telephones. The first request for telephone connections to the firehouses was raised in 1903 by the Fire Commission and rejected.

ing facilities, water supply, prevailing winds, street grades, and street paving. Insurance policy writers then based their premiums on the information contained in the maps. Sanborn Maps also served as valuable historical records. As municipalities were resurveyed, the obsolete maps became a treasure of time-stamped information. The map pages, bound in books measuring about a yard square, could be compared side-by-side to observe era-by-era evolutions in cities and towns across the United States. In North Carolina, the Sanborn Map and Publishing Company surveyed over 150 cities and towns between the late nineteenth and midtwentieth centuries. Many were surveyed several times over several decades between the 1880s and the 1950s.

Raleigh was first surveyed in 1884. The map dated July of that year consisted of only three sheets and covered both the first few blocks of Fayetteville Street and several commercial and industrial facilities on West Street. Fire department information was sparse, listing only equipment: one steam engine, two hand engines, and no hose carts. Water facilities were labeled "not good," though the fire cisterns locations were noted. The prevailing winds were indicated as southwest and the population was cited as 15,000. Industries and other major facilities listed in the 1884 map included the Pioneer Manufacturing Company at the end of West Street; Allen and Cram Foundry and Machine Shop on the corner of Hargett and West streets; a furniture factory at 112 1/2 West Street; Thomas H. Briggs "Sash, Door, and Blind Factory" at 218 West Street; a cotton warehouse in 300 block of Wilmington Street; and the Yarborough Hotel in the 300 block of Fayetteville Street. Frame construction was the choice for homes, barns, and stable, while brick was common for churches and commercial buildings.

Chapter 4 - Ballyhoo and Business Meetings

Scandals

On Jan. 15 1883, Captain Randolph A. Shotwell, editor of Raleigh's *Farmer and Mechanic* newspaper, drafted a plan for reaching people trapped in the upper stories of a burning building. He sent his idea to a New York newspaper after the Newhall House in Milwaukee claimed 71 lives on Jan. 10, 1883. His idea consisted of using lightweight men trained in the use of ladders equipped with a hook on the end. The man would hook the ladder to the windows sill above him, climb to the next story and repeat the process. The letter did not appear in the newspaper, but two months later another New York newspaper reported the first exhibition of the New York City Fire Department's new scaling ladders. Shotwell sent a letter to the fire department after reading that account, stating that while he had no desire to make money from a life-saving invention, he surely was entitled to recognition for his service to humanity. He received a response from the Chief of the New York City Fire Department that the original letter was received. The Chief did not deny that their ladder was based on Shotwell's design, but noted that a somewhat similar ladder called a pompier ladder was invented in St. Louis some time ago.¹²⁹

The Apr. 12, 1888 edition of the *News & Observer* reported that "The Victor Fire Company has promptly expelled Henry Sorrell who the other day fell from grace and appropriated property not belonging to him. The Victors have no use for such characters."¹³⁰

During the second annual North Carolina State Fireman's Association tournament in Charlotte on May 21, 1890, the Capital Hose Company was "refused the privilege of using a reducing coupling, which they intended to use in order to place them on an equal footing with other companies in making connection with the Charlotte hydrants." Earlier, Captain Woollcott of the Capital team wrote to Secretary McCausland of the association asking to use the attachment and the Secretary replied that there was no objection, and that the Capital team would be allowed to use it. The letter was shown to the judges, but the judges refused to allow the coupling and thus the team refused to run entirely. Another incident at the tournament involved the 300-yard champion reel race. After the gold medal, currently held by the Capital Hose Company, was awarded to Greensboro, the Raleigh company entered a protest "on account of the distancing having been 50 feet over the 300 yards when they ran for the medal." Thus judges decided that another run must be made for the medal and sent the gold award back to Raleigh until another contest could be run. Two days later, the following editorial appeared in the May 23, 1890 edition of the News & Observer:

Was There Ground for Complaint?

The Greensboro Patriot has some very ungenerous and impolite things to say about the Raleigh Capital team in their contention for their rights at the contest at Charlotte. The Patriot labors under the disadvantage of not being in possession of the information which it ought to have before it tries to discuss the subject. If this is not the cast it strangely misrepresents. With regard to the cham-

¹²⁹ Farmer and Mechanic, Mar. 7, 1883, Mar. 14, 1883. The pompier ladder was invented by St. Louis Fire Department Lt. Chris Hoell, and adopted by the New York City Fire Department in 1882. Calfee, Mica. The Amazing Pompier Ladder. http://www.riotacts.com /fire/pompierladders.html.

¹³⁰ News & Observer, Apr. 12, 1888.

pion medal reel race the Patriot says: "If the track was too long for Raleigh, it was too long for Greensboro. Sauce for the goose is sauce for the gander."

This is misleading and everybody who was on the ground knows it. As a matter of act the distance staked off for Raleigh to run was not the distance which Greensboro ran and which Charlotte ran.

We ask the Patriot to answer these questions:

1. Was not Raleigh the first town to run?

2. When Raleigh ran and laid its hose was it not found that the hose was not to cover the distance marked off?

3. Did not Raleigh then put in a protest that their hose was the proper length, and that the distance measured was in excess of what is should be?

4. Was not a measurement then made and was it not discovered that the distance was fifty feet over the three hundred yards which it should have been?

5. Was not the distance then corrected and the fifty feet knocked off, and did not Greensboro make the three hundred yard run which was fifty feet less than Raleigh ran?

Let the Patriot answer these questions fairly and squarely. If the above is fund to be true, did not Raleigh have a right to complain? She made the run, and finding that the hose was not long enough, one of the men ran back to see if it was stretched the whole length. In the meantime a foul was called and the men halted. After this delay they decided to attach the nozzle anyhow, no knowing what the trouble was, and then they were awarded 57 3/4 seconds. That they could have made it in far less time if there had been no inexcusable bungling in the measurement nobody is unreasonable enough tot gainsay. The Patriot says the Capitals "seeing they were likely to be beaten began kicking as usual. The judges offered them another trial and Greensboro and the other companies made no objection, but they declined." Will the Patriot explain why the judges offered Raleigh another run? For no reason except that they knew that the first run was unfair to them. In addition to this any fireman knows that the team was exhausted after the first run and could not have done itself justice on a second run. A three hundred yards run is no child's play and they would have been foolish to run it a second time.

It may be next in order for the Patriot to explain the remarkable conduct of the judges since it has presumed to denominate the Raleigh boys as "Kickers." The judges declared the race off and said it must be run again. Why did the judges declare the race off? Certainly for good reason. And the race was off, There was no race that counted. The next morning there were no teams to run. Greensboro said it would not run again as it had on the medal. Was not this a refusal to acquiesce in the decision of the judges. But the judges then assumed the vary arbitrary prerogative of warding the medal to Greensboro. What power had the judges to do this after having declared that there had been or ace? they placed themselves in a ridiculous attitude, and cannot sustain their action. The Raleigh boys claim the champion medal, and they will hold it till there is a fair contest for it.

With regard to the ruling out of the Capitals on the hundred and fifty yard race in the morning on the ground of their using an adjusting coupling, the unreasonableness of that is too palpable for comment. The use of the coupling was the same thing as if they had carried their hose to Charlotte. They left the hose here in order that the city might not be deprived of it in case of a fire, having first been assured by the secretary of the association that there would be no objection.¹³¹

¹³¹ News & Observer, Aug. 21, 23, 1890.

Business Meetings

Though the Capital City's volunteer fire companies were part of a city-governed Raleigh Fire Department, each was also an independent organization. The companies appointed officers, held regular meetings, and took minutes at each meeting, such as the following Rescue Company excerpts:¹³²

Rescue Hall, Jan. 11, 1896

According to pre-arrangement, the members of Rescue Company met at their hall tonight in social gathering to enjoy the oyster supper which had been prepared by the committee. It is needless to say it was an evening of real pleasure, though on account of sickness and other causes, some of our members were prevented from being present.

Foreman Lumsden was master of ceremonies, and made a few remarks, welcoming the visitors, and stating that this was our twenty-fourth anniversary, etc. After his remarks, short speeches were made by Mayor Badger, Ex-Foreman Brewster, Ex-Foreman Weir, Ex-Foreman T. W. Blake, Ex-Foreman Dicks, Frank Bauman, Chief of the Department Englehard, Chas. E. Johnson, Chairman of the Fire Committee; Walter Woollcott, Foreman of the Capital Hose Company; Meade Lambeth, Foreman of the Hook and Ladder Company; W. M. Parish, C. B. Park, and Geo. L. Tonnoffski.

A letter was read from Mr. Jno. R. Ferrall, in which he expressed regrets that he could not be present.

A letter was also read from Mr. W. C. Stronach in reference to his picture, which he said he would gladly furnish.

After the oysters were served, came cigars, and after all had enjoyed till a late hour, the crowd dispersed, with many good wishes for the company, and that we might have the pleasure of meeting again on such a pleasant occasion.

W. A. Faucett, Secretary

Rescue Hall, Mar. 2, 1896

Third Regular Meeting

In the absence of the Foreman and Assistant Foreman, the Company was called to order by Bro. Jno. S. Riddle.

The minutes for January and February meetings were read and approved.

On motion of the Secretary, the Committee on Oyster Supper was instructed to take the matter in hand, and if sufficient money was subscribed, to set the time, complete the arrangements, and notify the members.

The Committee on Applications not having reported, no action was taken on the application of Mr. Willis.

After roll call, and reading of fire alarms, the Company adjourned.

W. A. F, Secretary

¹³² Rescue Fire Company, Minutes.

Fires for March March 13, Box 15, 2.50 p.m. 9 present.

Rescue Hall, May 10, 1897

Fifth Regular Meeting

On account of the city election, the regular meeting for May was held tonight.

The company was called to order by Foreman Lumsden. Minutes of March meeting were read and approved. Fire report for April read.

The application of Mr. Samuel L_____ for membership in the Company was presented, and without objection, the application was acted on at this meeting.

A vote was taken on the applications at January meeting, and the following were elected to membership: Robert Little, and Frank Brining. Mr. Gilleland was reported unfavorably by the committee, and on vote was rejected. D. B. Parrish's application was withdrawn.

The committee on the death of Bro. Riddle submitted their report which, on motion, was adopted.

Under the head of new business, the Foreman stated that the city had paid our per capita to the Association, and returned to the Company a check for \$13, the amount our Company paid.

An invitation was received from the Charlotte Fire Department, inviting our company to take part in a tournament at Charlotte during the Woman's Exposition.

The Foreman said that he would like for a team from this company to attend the State Fireman's Association in Fayetteville, and that it might be well this early to consider ways and means of going.

After discussions as to how we could raise the money to pay the expenses of a team, a committee was appointed consisting of the Foreman, T. W. Blake, Park W. A. Faucette and W. C. White, to ask the city to donate us \$50 for that purpose, and to take the matter in hand and report at our next regular meeting.

No other business, the Company adjourned.

W. A. F., Secretary

Fires for May

May 12 - Box 24 - 2.40 p.m. 9 present May 24 - Box 24 - 2.18 p.m. 7 present

Rescue Hall, Jul. 9, 1897

Seventh Regular Meeting

On account of Fourth of July holiday, the meeting for July was not held till tonight.

The Company was called to order by Foreman Lumsden.

The committee reported having addressed a communication to the Alderman in reference to going to the Annual Association and Tournament at Fayetteville, and that they had granted the Company permission to leave the city, but refused to give any assistance.

The Secretary was instructed to address a communication to President McNeill thanking him for our invitation to attend the tournament at Fayetteville.

Other matters related to the interesting of the department were discussed. The badge offered by Mr. T. W. Blake to the one attending the most fires during the quarter ending Jun. 30, 1897, was awarded to Mr. White.

After fire alarms were read, the roll was called, and, there being no other business, the company adjourned.

W. A. F., Secretary

Fires for July 1897

July 3, Box 23, 11.16 p.m. Present, 19 July 15, Box 35, 12.25 a.m. Present 12 July 19, Box 15, 5.06 p.m. Present, 14 July 22, Box 31, 4.40 a.m. Present 16.

Appendix A - Chief Officers

At the beginning of each fiscal year, the Board of Alderman appointed a Chief of the Raleigh Fire Department based on the recommendation of the Fire Committee. The Chief of Department drew an annual salary ranging from \$450 in 1891 to \$384 in 1900.¹³³ The Board also appointed an Assistant Chief. At the end of each fiscal year, the Chief of Department prepared extensive reports to the Mayor and city officials.

Joseph H. Green	1875-1881	Elected as Chief Engineer, Oct. 8, 1875. ¹³⁴
William J. Weir	1881-1882	Elected as Chief Engineer, May 24, 1881. Resignation accepted Jan. 6, 1882. ¹³⁵
Thomas W. Blake	1882-1888	Elected as Chief Engineer, Jan. 6, 1882. Resignation accepted Dec. 17, 1888. ¹³⁶
Edward B. Engelhard	1888-1892	Elected as Fire Chief, Dec. 17, 1888. ¹³⁷
Charles E. Johnson	1892-1893	Elected as Fire Chief in 1892. ¹³⁸
Edward B. Engelhard	1893-1894	Elected as Fire Chief, Jul. 7, 1893. Resignation reported Sep. 10, 1894. ¹³⁹
Louis A. Mahler	1894-1901	Elected as Fire Chief, Nov. 3, 1894. ¹⁴⁰

¹³³ City of Raleigh, Minutes.

¹³⁴ Sentinel (daily), Oct. 9, 1875; Observer (daily), Jun. 8, 1878; City of Raleigh, Minutes, May 11, 1880; Branson Business Directory, 1877; Raleigh City Directory, 1880-1881.

¹³⁵ City of Raleigh, Minutes, May 24, 1881, Jan. 6, 1882.

¹³⁶ City of Raleigh, Annual Reports, 1884, 1885, 1886, 1887, 1888; City of Raleigh, Minutes, Jan. 6, 1882, Dec. 17, 1888.

¹³⁷ City of Raleigh, Annual Reports, 1889, 1890, 1891; City of Raleigh, Minutes, Dec. 17, 1888, Jun. 5, 1891.

¹³⁸ City of Raleigh, Minutes, Jun. 2, 1893.

¹³⁹ City of Raleigh, Minutes, Jul. 7, 1893, Sep. 10, 1894.

¹⁴⁰ City of Raleigh, Annual Reports, 1898, 1899, 1900; City Minutes, May 8, 1895; Raleigh City Directory, 1896-97; City of Raleigh, Minutes, May 6, 1899.

Appendix B - City Ordinance

October 5, 1888

AN ORDINANCE FOR THE GOVERNMENT OF THE FIRE DEPARTMENT OF THE CITY OF RA-LEIGH, N.C.

Be it ordained by the Board of Alderman of the City of Raleigh:

That chapter 4 of the City Ordinances concerning the Fire Department be amended and re-ordained to read as follows:

1. That all the powers and duties hereafter vested in or imposed upon the Fire Department or any officer or member thereof shall be exercised and performed under the supervision and control of the Committee on Fire Department.

2. That the Committee on Fire Department shall consist of four Aldermen and the Mayor, whose duty it shall be to employ all necessary men, purchase all material for the proper working of the department, subject to the approval of the Board of Aldermen, and shall approve all accounts, being first approved by the Chief, and shall have a general supervision of the working of the department; and shall make such rules and regulations for the government of the department as they may deem proper, not inconsistent with the laws of North Carolina of this ordinance.

3. That officers of the Fire Department of the City of Raleigh shall consist of a Chief, an Assistant Chief, with one Foreman and one First Assistant Foreman to each company. The Chief of the Fire Department shall be Secretary of the Department, and from and after April 13th, 1889, shall also be Superintendent of the Electric Fire Alarm Telegraph; The Chief and Assistant Chief shall be elected by the Board of Aldermen in such a manner and at such time as the Mayor is elected, and shall hold office for two years, or until their successors are duly elected and qualified. The Chief shall be paid a salary, the amount of the same to be fixed before his election, and shall not be changed during his term of office. He shall not be a regular or honorary member of any fire company in the city while holding said office. In the absence of the Chief from the city, or being prevented from attending to his duties from sickness, the Assistant Chief shall do and perform all duties of the Chief, and shall receive as compensation the same salary as the Chief, the same to be deducted form the Chief's salary.

4. That the Fire Department of the City of Raleigh shall consist of one steam fire-engine and reel, one onehorse reel, two hand hose reel companies, one chemical engine, one hook and ladder truck, one buck company, one hand engine and reel, and such other apparatus as the Board of Alderman may provide. The number of men allowed to each company shall not exceed, for Steam Fire Engine and Reel 25 in all, of which number, beside the drivers, there shall be three paid men who shall receive as compensation an amount to be fixed by the Board of Aldermen, and who, with the drivers, shall be subject to make special rules and regulations as the Committee may make. Hand Reels, 25; One-horse Reel, 15; Chemical Engine, 25; Hook and Ladder, 25; Bucket Company, 25; Hand Engine and Reel, 50. This number of companies shall not be increased without the approval of the Board of Alderman. All members of the Fire Department must live within the corporate limits of the city, and must not be less than 18 nor over 45 years old, except that each company shall be entitled to retain, in addition to the number herein-before mentioned, such members as are at present over 45 years old and belonging to the company. Any company failing to comply with the rules and regulations of the department shall be immediately put out of commission, and ignorance of rules and regulations will not be deemed a sufficient excuse.

5. That the Chief, or, in his absence the Assistant Chief, or, in his absence, the foreman of the company arriving first at the fire, shall command the Fire Department until the arrival of the Chief or Assistant Chief,

who shall report to the officer in command of the department before assuming command, and their orders shall be obeyed promptly, and for any willful violation of the commands of the officer in charge of the department the party offending shall be dismissed from the Fire Department by the Committee on Fire Department. The Chief shall have control of the engine houses, engines, apparatus, the horse of the engine reel, and all other property of the Fire Department. He shall inspect the same once in every week, see that everything is kept in a condition that is efficient service, and report all needed repairs to the Committee, who shall have authority to order the same. He shall have an annual inspection of the apparatus of the whole department, and make a report of same to the Committee on Fire Department. During fires and inspections he shall control all fire-plugs, maintain order among the firemen, note and report to the Mayor all violations of law or of city ordinances, and do all things property for the efficient operation of the department. He shall report annual to the Mayor the names, ages, residences and occupation of the firemen, the number and localities of the fires which have occurred during the year, the causes thereof, if they can be ascertained, the names of the owners of the property destroyed or injured, the amount of such destruction or injury, and such other matters touching its operations and organization as he shall think proper. He shall examine all fire-alarm boxes at least once in two weeks, or oftener if necessary, and shall have all repairs immediately attended to. He shall examine all fire hydrants at least once in three months, and shall make a report of same to the Mayor. He shall also keep a record of all accounts of the Fire Department and Fire-alarm Telegraph, showing where all material was used, and submit the same to the Committee whenever called up to do so. He shall give bond in the sum of \$500, subject to be increased by the Board of Alderman, for the faithful discharged of his duties, and may be suspended by the Committee on Fire Department for neglect of duty or incompetence in office until the matter can be brought before the Board of Alderman for investigation and action.

6. That if any person interfere with a fireman in the discharge of his duty, or loiter about the engine houses, or if any minor any person meddle with the engine, hoses or apparatus, as heretofore mentioned, he shall be fined ten dollars or imprisoned thirty days.

7. That the horses now used by the Fire Department, except the horse heretofore put under control of the Chief of Fire Department, shall be under the control and management of the Street Commissioner to the same extent as the other horses of the city, under the following restrictions:

(1) The horse must not be used or sent beyond the sound of the fire alarm, and at the first sound of the alarm must be driven with all possible haste to the engine houses and placed under the control and direction of the Fire Department until the return of the apparatus to the engine houses.

(2) During the night the horses are to be kept at the engine houses ready to answer all alarms. The employment and wages of the drives, the purchasing of forage and everything pertaining to the care of the horses, shall be placed under the charge of the Street Committee.

8. That should any person knowingly give or cause to be given any false alarm of fire by means of the fire alarm telegraph of otherwise, such person shall be subjected to a fine of fifty dollars, to be recovered as other fines are recoverable, or imprisoned thirty days; except such alarm be given for testing either the fire-alarm telegraph or apparatus of the department.

9. That authority is hereby given to the Mayor to offer a reward of fifty dollars, or less, for the apprehension and conviction of any person or persons who shall knowingly give or cause to be given any false alarm of fire by means of the fire-alarm telegraph or otherwise.

10. That if any person interfere with the fire-alarm telegraph, or injure any of the poles, wires, boxes, or other apparatus, such person shall be fined twenty-five dollars, or imprisoned thirty days.

11. That in the event of alarm of fire the apparatus of the Fire Department shall have the right of way in and upon the streets, lanes, alleys, squares and railroad crossings in going to any fire, or being upon such streets,

lanes, alleys, squares or railroad crossings. No person shall obstruct or neglect to make way for any of such apparatus, under a penalty of ten dollars of imprisonment for thirty days.

12. That is shall not be lawful for any person whomsoever to ride or a drive a vehicle through the streets, lanes, alleys, or squares in which the Fire Department are assembled for the purpose of extinguishing a fire, and should any person attempt to ride or drive a vehicle through the streets, lanes, alleys, or squares in which the Fire Department are assembled as aforesaid, such person shall be fined ten dollars or imprisoned thirty days.

13. That if any wagon, cart, street-car, or other vehicle, be willfully driven over the hose belonging to the Fire Department, laid in the streets, lanes, alleys or squares, at the occurrence of any fire in the city, or at any alarm of fire, the driver or owner or owners of such vehicles shall be fined for such offence fifteen dollars or imprisoned for thirty days.

14. That it shall not be lawful for any one to congregate in the streets, lanes, alleys or squares next to the fire so as to interfere with the department, under a penalty of ten dollars or imprisonment for thirty days.

15. That no engine, reel or other apparatus of the Fire Department shall leave the city, and no apparatus or property of the Fire Department shall be used for other than fire purposes, without the consent of the Chief of and Committee on Fire Department.

16. That the Chief and Assistant Chief, and Foreman and Assistant Foreman of each company be, and they are hereby, vested with all powers of a police officer of the city in so far as to make arrests within the city during the existence of any fire.

17. That during the continuance of any fire the Chief and Assistant Chief of the Fire Department, the Committee on Fire Department, each of the Foremen and the Mayor shall the power to call on any and all persons to assist in extinguishing the same, or in pulling down or blowing up any building, or in removing any building, or in removing any goods, wares, merchandise and furniture from any building on fire or in danger, to some place of safety, or to assist in making arrests. Any person failing to obey any order for the purposes aforesaid shall be fined ten dollars; *Provided, however*, that no building shall be blown up, pulled down or in any way destroyed without the advice and consent of a majority of such of the Aldermen as shall be present.

18. That in case of fire it shall be the duty of the Mayor to attend and take charge of the Police Department; in case of the removal or exposure of property he shall detail a sufficient number of citizens, not members of the Fire Department, who shall constitute an auxiliary police force, whose duty it shall be, under the direction of the Mayor, to guard all exposed property and detain all suspicious and disorderly persons, and to do whatever may be lawfully done to protect the rights of the citizens and preserve the public peace. In case the Mayor is not present, the duties above set out will be required of the Chief of Police.

19. That all ordinances or parts of ordinances in conflict with this ordinance are herby repealed from this and after this, the 5th day of October, A. D. 1888.

Appendix C - Equipment List

For the Fiscal Year ending 1887:

Rescue Steam Engine Company Membership 37	Phoenix Chemical Company Membership 61	Hook and Ladder Company Membership 20	Victor Company Membership 60	Bucket and Ladder Company Membership 44
 second class Gould steamer two-wheeled horse hose truck four-wheeled hand hose truck two-wheeled hand hose truck fuel cart horses sets of harnesses axes lamps spanners wrenches hose 	 double-cylinder engine single-cylinder engine horses axes acid chambers buckets fire hooks ladders ladders lamps monkey wrench nozzles and play pipes soda buckets spanners 260 feet serviceable hose 150 feet damaged hose 	 four-wheel truck axes buckets fire hooks ladders lamps 	 four-wheeled hand engine two-wheeled hose truck axes buckets lamps spanners play pipes wrenches 500 feet good hose 	 four-wheeled truck axes buckets ladders lamp

Appendix D - Bibliography

- City of Raleigh. Annual Report of the Mayor and Offices of the City of Raleigh, fiscal years 1884-1891, 1898-1900, 1902, 1904-1906, 1910-1911.
- ____. City Minutes, assorted dates.
- Conway, W. Fred. Chemical Fire Engines. New Albany, IN: Fire Buff House, 1987.
- ____. Those Magnificent Old Steam Fire Engines. New Albany, IN: Fire Buff House, 1997.
- Ditzel, Paul. Fire Alarm! The Fascinating Story Behind the Red Box on the Corner. New Albany, IN: Fire Buff House, 1997.
- _____. Fire Engines, Fire Fighters: The Men, Equipment, and Machines, from Colonial Days to the Present. New York: Crown Publishers, 1976.
- Farmer & Mechanic, assorted issues.
- Hass, Ed. Fire Equipment. San Diego: Thunder Bay Press, 1998.
- Hill's Raleigh City Directory. Richmond: Hill's Directory Company, 1903–1910.
- Lancaster, Marshall. Raleigh: An Unorthodox History. Asheboro: Down Home Press, 1992.
- Legeros, Michael J. Raleigh Fire Department History, http://www.legeros.com/ralwake/raleigh/history.
- ____. Raleigh and Wake County Firefighting, Charleston: Arcadia Publishing, 2003.
- Milligan, Chuck. Early Black Firefighters of North Carolina, http://members.aol.com/fireriter1.
- Murray, Elizabeth Reid. Collection of research materials, Olivia Raney Local History Library, Raleigh.
- Murray, Elizabeth Reid. Wake: Capital County of North Carolina, Vol. 1– Prehistory Through Centennial. Raleigh: Capital County Publishing, 1983.
- Morning Post, assorted issues.
- News & Observer, assorted issues
- North Carolina State University. Agromeck.
- Perkins, David (Ed.), Raleigh: A Living History. Winston-Salem: John F. Blair, 1994.
- Raleigh Fire Department. A Historical Sketch of the Fire Department of the City of Raleigh, N. C.. Raleigh, 1944.
- Raleigh Fire Department. Raleigh Fire Department, 1984. Dallas: Taylor Publishing Co., 1984
- Sanborn Fire Insurance Maps. New York: Sanborn Map Co., 1884, 1888, 1896, 1903, 1914.
- Raleigh Times, assorted issues.
- Rescue Company. Minutes.
- State Chronicle, August 30, 1889.
- Vickers, James. Raleigh: City of Oaks- An Illustrated History. Sun Valley, California: American Historical Press, 1997.
- Zurier, Rebecca. The Firehouse: An Architectural and Social History. New York: Abbeville Press, 1982.