

The New England

Spring 2023



Fireguard

The Official Bulletin of the New England Museum of Firefighting

NEW ENGLAND INGENUITY



The Fire Museum of Maryland has in its collection this 1908 Hayes aerial ladder truck that is equipped with a Dahill pneumatic aerial hoist. It was motorized with a 1918 Mack AC tractor. The Dahill pneumatic aerial hoist used compressed air to raise the aerial ladder. It was invented by Edward F. Dahill, who was the Fire Chief in New Bedford, Massachusetts. Dahill was a progressive and innovative Fire Chief, who held several patents. He is one of the examples of "Yankee ingenuity" featured in this issue.

The New England Fireguard

Spring 2023

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MISSION STATEMENT

The New England Museum of Firefighting is a nonprofit educational organization that preserves, promotes, researches and shares the significant historical contributions of the people of New England to the American fire service. The Museum aspires to provide the public with engaging and interactive experiences that are relevant, accessible and meaningful to all people, through the preservation of fire apparatus and artifacts that illustrate the rich history of firefighting and the fire service in New England.

www.NEMOFF.org

President's Message

Dear Friends,

Welcome to the third installment of the Museum's newsletter, or should I say magazine. The *Fireguard* has turned out better than we expected. More importantly, the support that the Museum has received has been wonderful.

Since our last newsletter the museum has been gathering many historical artifacts and equipment for preservation. These are wonderful gifts that we truly appreciate. It is not just apparatus that we aim to preserve. The Museum is dedicated to all aspects of the fire service and its impact on New England history.

As you read the issue, you will realize how important certain individuals have been to the fire service. These inventors pioneered and led the way with advances in technology that we still use today to save lives and property. The fire service must move forward and embrace change. But we should never forget where we have come from. At the Museum, it is our goal to share that history. In this issue we show how advancements in technology from New Englanders has made the job of firefighting safer and more efficient.

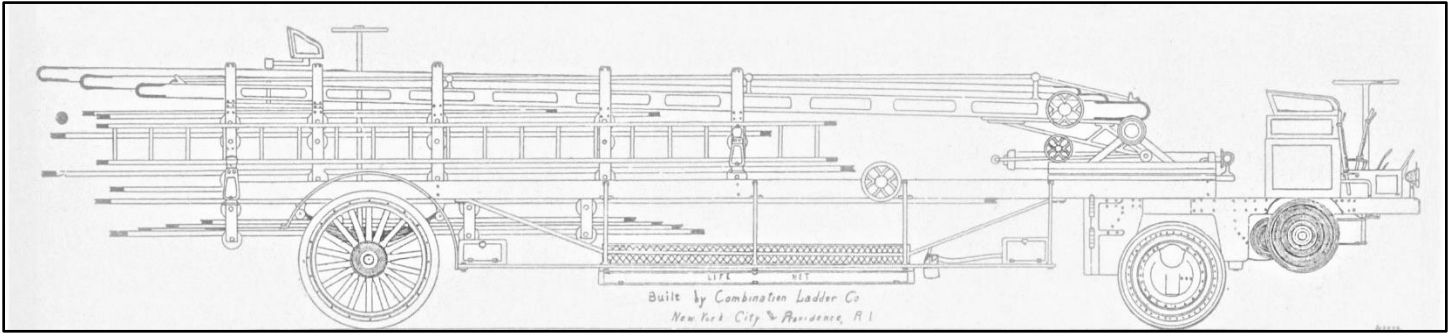
This summer we will be making many improvements to the Museum's building. We hope to have some open house dates for this fall. In the meantime, please visit the Virtual Museum on our website. We will have the Mobile Museum at the national SPAAMFAA convention in July. I hope that you can join us for that special event.

Best Wishes,



Michael Nugai

New England Ingenuity



The first three-section wooden aerial ladders were invented by Charles N. Richardson, who was the owner of the Combination Ladder Company of Providence, Rhode Island. Richardson's ingenious design reduced the overall length of a ladder truck by about one-third.

The stereotype of inventiveness, self-reliance, individual enterprise and technical solutions to practical problems, has long been associated with New Englanders. This "Yankee ingenuity" helped drive the Industrial Revolution during 19th Century and helped make New England the first industrialized section of America. Yankee ingenuity has played a prominent role in the evolution of New England's fire service.

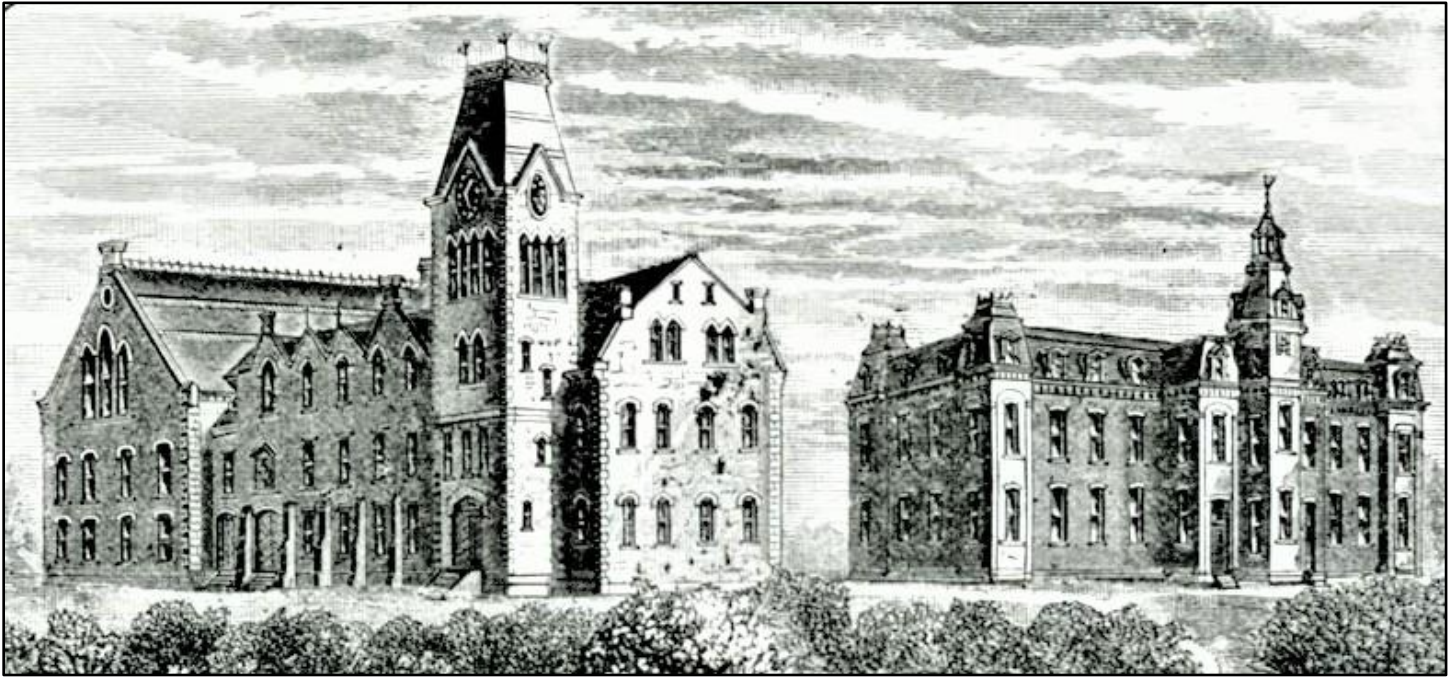
Beyond the fire service, there have been many great inventors from New England who epitomized Yankee ingenuity. These include men with little or no formal education whose inventions have impacted everyday life. They include Charles Goodyear (1800-1860), a self-taught chemist from Connecticut who invented vulcanized rubber, Percy L. Spencer (1894-1970), a Maine native who did not finish grammar school who invented the microwave oven, and Earl S. Tupper (1907-1983), a self-taught inventor from New Hampshire who invented an airtight plastic lid that spawned the eponymous Tupperware.

Yankee ingenuity has come to refer broadly to a typically pragmatic American approach to problem solving. However, New England ingenuity remains very relevant to the prosperity of the region and the nation.

Today, New England is home to many inventors. Among the states, Vermont and Massachusetts have the second and third highest per capita rates of invention. Connecticut is eighth on this list. This bodes very well for New England since studies have found that inventions, as measured by patents, drive long term regional economic performance.

New England also has some of the most well-educated communities. Massachusetts is the most educated state with 52.4 percent of residents with two or more years of college. Connecticut, New Hampshire and Vermont are the seventh, eighth and ninth most educated states respectively. About 47 percent of the residents of these states has at least two years of college.

New England also leads America in education. Massachusetts has the second highest number of colleges per capita of any state. New Hampshire, Massachusetts and Rhode Island all rank among the top ten states for college students as a percentage of their populations. Boston has the greatest concentration of colleges per capita of any American city. Three times as many by population than Los Angeles and Chicago, and eight times as many as New York City.



Worcester Polytechnic Institute opened in 1868 and was one of the first engineering and technology universities in America. Its first two buildings, Boynton Hall and Washburn Shops, were named after the school's founders, John Boynton and Ichabod Washburn. WPI Alumnus Howard G. Freeman is one of the two New England inventors featured in this issue.

In this issue we explore two New England inventors whose Yankee ingenuity had substantial impacts on the fire service and beyond. Edward F. Dahill (1862-1950) left school after the eighth grade and would become the fire chief in New Bedford, Massachusetts. Howard G. Freeman (1918-2015) was a 1940 graduate of Worcester

Polytechnic Institute. He would hold more than three dozen patents. Their stories illustrate the transition from the good old folksy Yankee ingenuity, as exemplified by the practical innovation of Dahill, to contemporary Yankee ingenuity, which is based upon education and technical innovation, as exemplified Howard.



CHIEF! Protect your men
Give them the old reliable

GLOBE SUITS

Finest Suits They Can Put on Their Backs!

Globe suits have been worn by firemen everywhere for 33 years and these men acclaim them as the best assurance of keeping warm and dry under most severe conditions. Coats are light, easy to work in, yet warm as toast even when you've been drenched. They have wide chest protectors, pockets with patent stays that won't sag or tear out and warm wrists. All our suits are made of tough durable fabric with waterproof interlinings and warm linings. Choice of brown, black or white, any length. See one of these suits—convince yourself that it's the finest suit you can buy. **ORDER NOW!**

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PANTS

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Among the most enduring Yankee fire service innovations is turnout gear for firefighters. This was invented by Courtland F.H. Freese (1872-1931) who is pictured in this 1906 advertisement. Freese owned the Globe Manufacturing Company of Pittsfield, New Hampshire. He also was a firefighter and understood what firefighters wanted and needed in a coat. Today, Globe is the world's largest manufacturer of structural firefighting turnout gear.

Edward Dahill: New Bedford's Inventive and Indefatigable Fire Chief

Edward Dahill was one of the most important fire chiefs in the history of New England. He had a distinguished career with the Fire Department in New Bedford, Massachusetts, which spanned six decades. He was very active in the Massachusetts State Fire Chiefs' Association as well as in the International Association of Chief Engineers, now the International Association of Fire Chiefs. Dahill was more than a progressive chief, he was a self-taught inventor, who used his Yankee ingenuity to develop a very successful lift system for aerial ladders.

Edward F. Dahill was born in New Bedford, Massachusetts, in 1862. He was the younger of two sons of Irish immigrants Peter Dahill (1819-1877), a laborer, and Bridget Dahill (1829-1893). He attended public school until the eighth grade. In the early 1880s he became the proprietor of a shoe store. In September 1888, Dahill was appointed to the New Bedford Fire Department as a "call man" and was assigned to the newly organized Hook and Ladder No. 2. At that time, the Department consisted about 18 permanent members and about 130 call men. Call men were firefighters who had regular jobs and who would turn out to fight fires when they were summoned, or called. New Bedford at that time had about 40,000 residents and the fire department answered only about 100 alarms each year.

In 1890, Dahill was appointed as Lieutenant of Hook and Ladder No. 2. Two years later he was promoted to Captain. In 1896, Dahill was appointed as the Second Assistant Engineer of the Department. This is the equivalent to the modern rank of an assistant chief. In 1902, he became the First Assistant Engineer, with an annual salary of \$600. Then, in June 1904, Dahill was appointed as the Chief of the Department at a salary of \$1500.



Edward Dahill is seen in this photo soon after his appointment as Chief Engineer of the New Bedford Fire Department in 1904.

At this time New Bedford was growing rapidly. It experienced successive population increases of more than 50 percent in the 1880s and 1890s. It experienced a 55 percent population increase between 1900 and 1910. Dahill increased the size of the department by adding more permanent members as well as by building additional firehouses with new companies. As early as 1909 he was advocating for an all-permanent force. Despite the city's decades of rapid growth, and the significant risk of a conflagration this created, New Bedford did not suffer a conflagration while Dahill was Chief.

Under Dahill's leadership New Bedford was among the first fire departments in America to adopt motor fire apparatus. Motorization started in late 1908 with a Locomobile chemical engine. This was followed by a Webb motor pumping engine in 1910. This made New Bedford one of the first fire departments in New England to place a motor pumping engine in service.

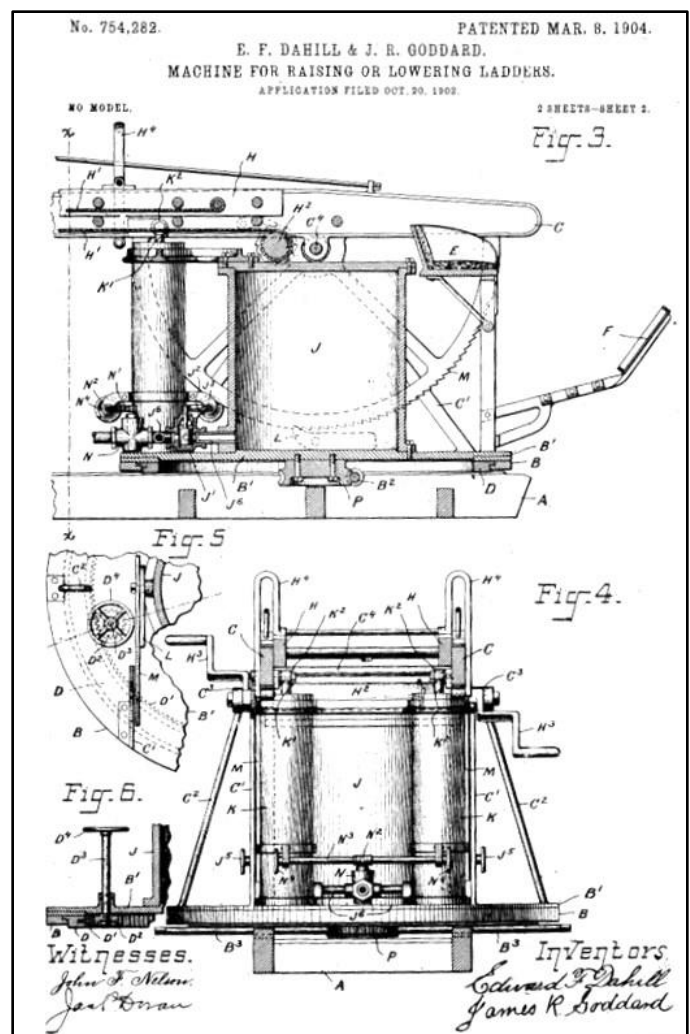
When Dahill became Chief, the New Bedford Fire department operated three horse-drawn Hayes aerial ladder trucks. These had a manually raised two-section wooden aerial ladder. Raising a Hayes aerial was a labor-intensive process. It required that the horses be detached from the apparatus before firefighters could hand crank a screw under the turntable to raise the ladder. This typically required six men. It reportedly could be done in under a minute. The actual time would vary based upon the available manpower.

Dahill appreciated the difficulty and time involved in raising an aerial ladder and he appreciated the need for a better system. In 1902, Dahill, along with New Bedford firefighter James R. Goddard (1858-1911), submitted their application for a patent for a "Machine for Raising or Lowering Ladders." Goddard was a call firefighter and served as the engineer of Engine Company 7, where Dahill's older brother Maurice was the Captain. Goddard's regular job was as a "stationary engineer." He also was an inventor. In 1886 he patented a device for operating steam engine indicators.

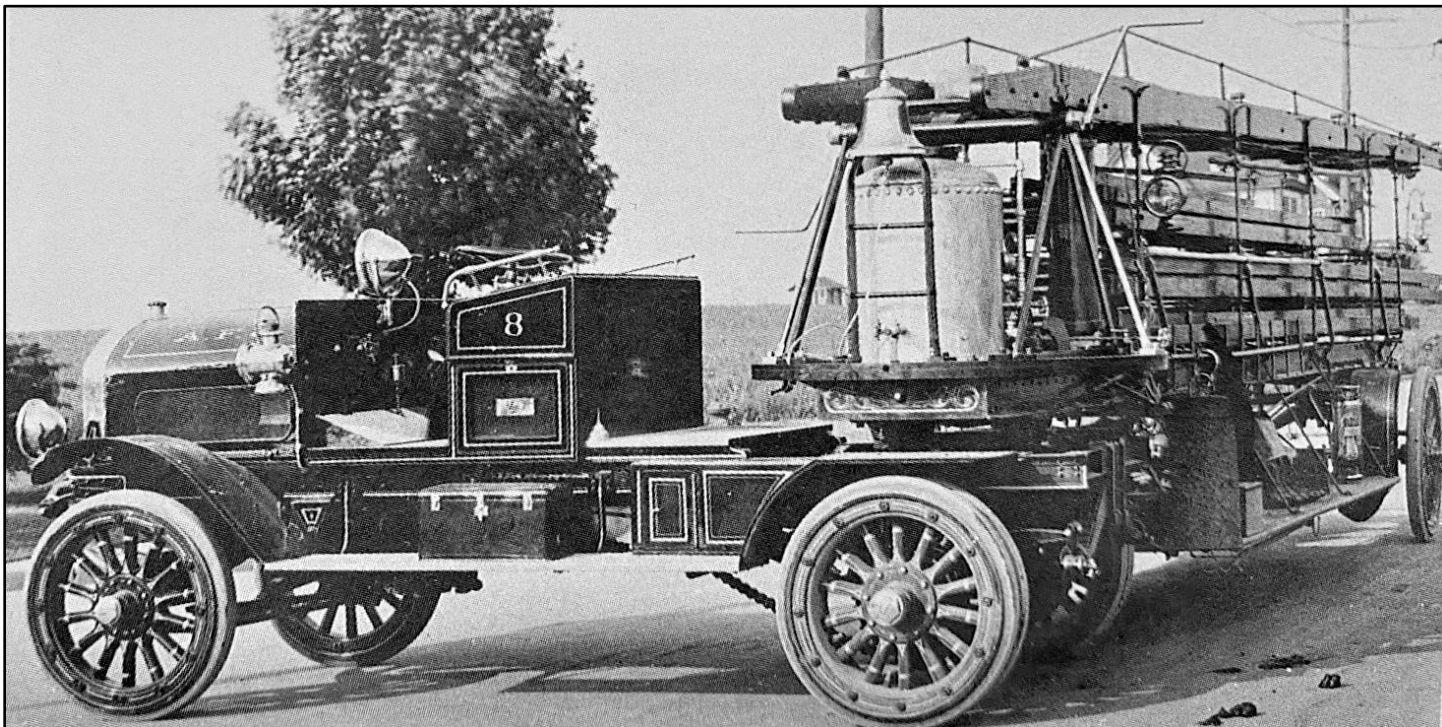
This new aerial hoist system used compressed air to raise the aerial ladder. The air was stored in a tank, which was located vertically on the turntable. The compressed air would operate two large pistons that were attached to the base section of the ladder. They could raise the aerial ladder in just seven seconds. There was an automatic shut-off valve that would close when the ladder reached a vertical position. There also were springs that engaged when the ladder reached a 45-degree angle, to help bring the ladder to a gradual stop.

The system was reported to hold enough compressed air to raise and lower the aerial ladder about 10 times. However, in practice it was about six times. With this pneumatic system, one man could now raise an aerial ladder by himself, freeing up other firefighters to perform other tasks.

Dahill and Goddard were granted their patent in March 1904. Dahill formed the Pneumatic Aerial Fire Appliance Company to sell "Dahill" aerial ladders. He engaged the Cornelius Callahan Company of Boston and New York City as his sales agent.



The 1902 patent drawings show the air chamber and pistons of the Dahill and Goddard's patent for a "Machine for Raising or Lowering Ladders."



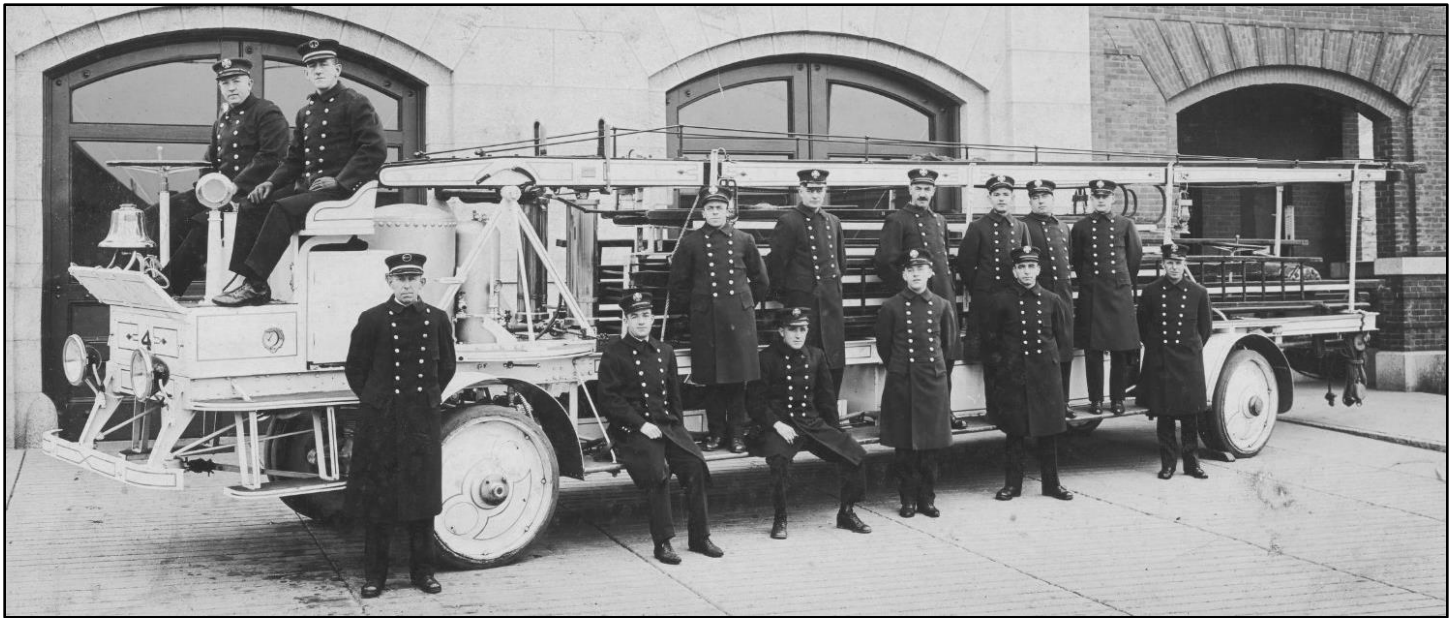
The fire department in Allentown, Pennsylvania, was one of many that retrofitted an older aerial ladder with a Dahill pneumatic ladder hoist. The 75-Hayes aerial ladder of Allentown's Rescue Hook & Ladder Company later was motorized with this 1914 Mack "Senior" four-wheel tractor at a cost of \$3500.

In 1907, Dahill submitted a new patent for a "Machine for raising and lowering ladders," which was an improved version of the original design. Later versions of the Dahill design used two air tanks mounted horizontally on the frame of the truck, behind the turntable.

The Dahill system could be retrofitted to a ladder truck easily. The system cost about \$1700 plus the cost of labor. By 1909, all three of New Bedford's Hayes aerial ladder trucks were upgraded with Dahill hoist systems. Several other fire departments retrofitted older aerial ladder trucks with Dahill systems. These included Boston, Brockton, Gloucester, Fall River and Cambridge, Massachusetts, Manchester, New Hampshire, Allentown, Pennsylvania, and Richmond, Virginia. The biggest single user of Dahill hoists was Baltimore, which first purchased these in 1908.

Some Baltimore aerials with Dahill hoists would be in reserve status until the 1960s. An operational example of a Baltimore ladder truck with a Dahill hoist is in the collection of the Fire Museum of Maryland.

Dahill would have a very eventful year in 1910. On April 18, his brother, Maurice, still Captain of Engine 7, died of an infection six days after he was injured at a fire. Three weeks after that, on May 4, there was a fire at Dahill's residence, which was caused by a defective fireplace. Fortunately, the damage was only \$75, which is about \$2500 in today's dollars. Around that same time, New Bedford put its fire motor pumping engine in service. In June, Dahill submitted a new patent application for improvements to aerial ladders. This consisted of a ladder with two wooden strips on the rails, between which was a strip of steel, all of which was sheathed in aluminum.



New Bedford Ladder 4 originally was an 1891 horse-drawn Hayes aerial ladder truck. In 1909 it was retrofitted with a Dahill pneumatic hoist. In 1917 it was rebuilt by Ahrens-Fox with a Couple-Gear battery-powered front drive tractor.

In December 1910, Dahill submitted another patent application. This was for a mechanical device for raising, rotating and extending the aerial ladder. This was a pioneering design. It was among the first of its type. It would not be until the 1930s that mechanically raised aerial ladders would start to be used.

In 1916 New Bedford received its first motorized aerial ladder truck. This was built by the Ahrens-Fox Fire Engine Company using a Couple-Gear Freight-Wheel Company battery-powered chassis. It had a two-section 75-foot wooden aerial ladder, which was built by the Peter Pirsch Company. It was equipped with a Dahill system.

Over the next two years, Ahrens-Fox rebuilt all three of New Bedford's aerial ladder trucks with Couple-Gear battery-powered systems. Ahrens-Fox would go on to use Dahill pneumatic aerial ladder hoists for all but one of the hook and ladder trucks that it built in the 1920s and 1930s.

Unfortunately for Dahill, in early 1902 the Seagrave Company introduced a spring mechanism for raising aerial ladders. This was followed in 1904 by American-LaFrance's spring raised "American Automatic Aerial."

Seagrave and American-LaFrance were the two largest fire apparatus firms. Both had national sales networks and very well-established and loyal customer bases. They also had advertising budgets that were far greater than anything that Dahill and the Pneumatic Aerial Fire Appliance Company ever could afford. Ahrens-Fox was a significant apparatus manufacturer. However, the firm would not start building aerial ladders in earnest until 1923. Ahrens-Fox never had a significant share of the aerial apparatus market, which was dominated by American-LaFrance and Seagrave through the first half of the Century.

Ultimately, the Dahill hoist was not widely accepted and fell into obscurity. This obscurity is undeserved. The design was very significant because it was the direct forerunner of the modern hydraulically raised aerial ladder, which uses a pair of hydraulic pistons.

Despite the lack of commercial success with the Pneumatic Aerial Fire Appliance Company, Dahill continued to distinguish himself until his retirement in 1946 at age 84.

The Pneumatic Aerial Fire Appliance Co.

NEW BEDFORD, MASS.

BUILDERS OF DAHILL TRUCKS 55, 65, 75 and 85 FEET

AERIAL LADDERS

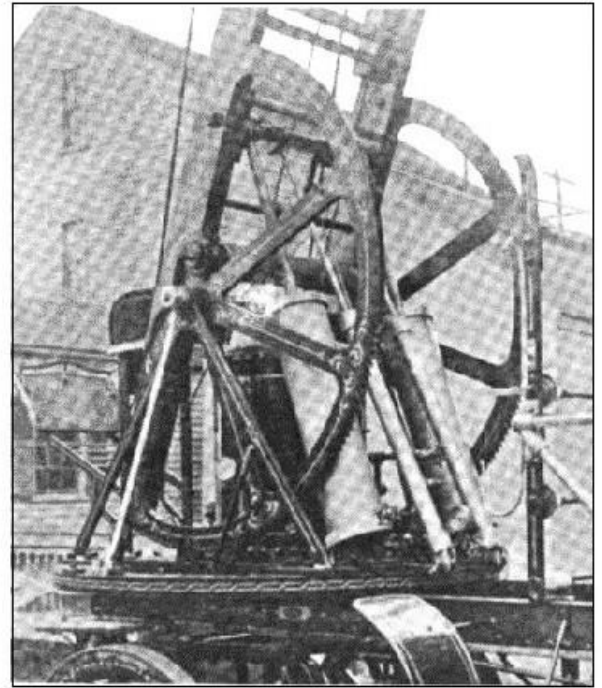
THE DAHILL AERIAL LADDER

Is the invention of Chief Edward F. Dahill and Captain Goddard, of New Bedford, Mass. fire department. The claim for its improvements over other trucks is, that its lifting device can be operated by simply turning a valve and that it will stop automatically when erect in position. This lifting device which can be applied to other apparatus, consists of a circular storage-tank and two separate cylinders, all vertically mounted on the top of the turntable under the ladder. The motive power is air under pressure. The piston rods in the cylinders are directly connected to the ladder. It was demonstrated that it is possible to raise a seventy-foot extension from its bed on the truck to full height in seven seconds.

OFFICE AND SALESROOMS

THE CORNELIUS CALLAHAN CO.,

127 PURCHASE ST., BOSTON, MASS.

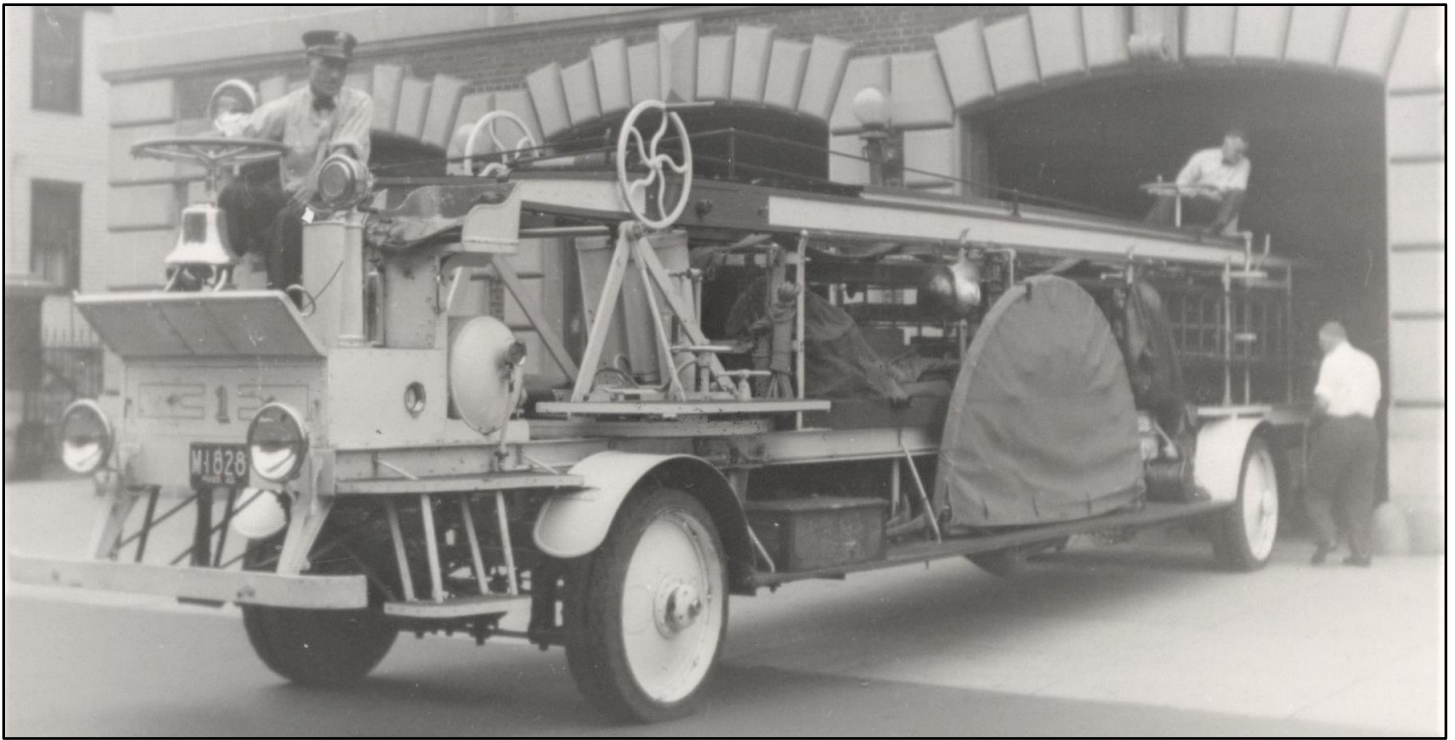


After Dahill formed the Pneumatic Aerial Fire Apparatus Company to sell his ladder hoists, he engaged the Cornelius Callahan Company of Boston as his sales agent. The company was one of the leading retailers of fire service products in the Northeast. The company was founded in 1879 by Cornelius Callahan (1840-1922), an Irish immigrant and an inventor who held 20 patents related to fire hose, couplings, valves and other fire appliances.

During Dahill's tenure the population of New Bedford peaked in 1920 at more than 120,000 residents. Under Dahill's leadership, by 1917 the fire department was motorized fully with eight motor pumping engines and four Dahill/Couple-Gear aerial ladder trucks. It was among the first departments of that size in the nation to be fully motorized.

Dahill continued to innovate. In 1922 he received a patent for "Speed-control means for lifting mechanisms." This was designed to work with Dahill pneumatic lifting mechanism and was used on Aherns-Fox aerial ladder trucks.

Also in the 1920s, Dahill campaigned to standardize New England fire departments' hose coupling to the National Standard thread. He personally loaned tools to fire departments so that they could change their non-standard couplings. He was an early advocate for the use of firefighting foam for fighting fuel fires. In 1927 he invented a smoke ejecting machine that used hydraulic pressure to power a large ventilation fan that would suck out smoke from a burning building. In the 1920s and 1930s, he was very active in the International Association of Fire Chiefs and the Massachusetts Fire Chiefs' Association.



New Bedford's Ladder 1 was this 1916 battery-powered ladder truck. It was the first of four such ladder trucks that served in New Bedford. You can read more about these Dahill hoist equipped aerial ladder trucks in the Virtual Fire Museum at the Museum's website.

In 1946, Dahill finally retired. True to form, right up to the time of his retirement he continued to experiment and innovate. In 1946, he was experimenting with the use of high-pressure fog for structural firefighting. Upon his retirement, Dahill moved to Our Lady's Haven in Fairhaven, just across the Acushnet River from New Bedford.

Dahill passed away on January 7, 1950. Dahill had outlived his Wife, Rose (d. 1937), and all three children of their children. He was buried together with them, and near his late brother Maurice, in Saint Mary's Cemetery in New Bedford.

In this 1927 photo the indefatigable 65-year-old Chief Edward Dahill is in command at a winter fire. Dahill would not retire for another 19 years.



The Yankee Innovation of Howard G. Freeman

The "Navy" fog nozzle was of the most important innovations in firefighting technology in the 20th Century. It also was critical to the American victory in the Pacific Theater in World War Two. Officially branded as the "Waterfog" nozzle, the Navy fog nozzle was produced in vast numbers for the war effort by the Rockwell Sprinkler Company, of Worcester, Massachusetts, between 1942 and 1945.

The man behind the nozzle was Massachusetts native Howard G. Freeman (1911-2015). He was a 1940 graduate of Worcester Polytechnic Institute and held a degree in mechanical engineering. After graduation he was hired by the Rockwood Sprinkler Company and was placed in charge of its new research and development department.

The Rockwood Sprinkler Company was founded by George Ichabod Rockwood (1868-1959), a Massachusetts native who was a descendant of the first governor of Plymouth Colony, William Bradford. Rockwood graduated from Worcester Polytechnic Institute in 1888 with a degree in mechanical engineering. In 1906, he founded the Rockwood Sprinkler Company to manufacture the automatic sprinklers that he had invented and patented. The company dominated the automatic sprinkler market in the Northeast.

Besides sprinklers, Rockwell built a variety of firefighting equipment. When the United States entered World War Two, Freeman was working on improvements to firefighting nozzles and ball valves for Rockwell.



**Rockwood SG-60
WaterFOG Nozzle
is 5 different
nozzles
in one**

**Eliminates "Special"
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Nozzles!**

Here's a true all-purpose nozzle! Discharges water in any of the accepted water patterns, as well as Rockwood solid-stream FOAM or Rockwood FogFOAM. Compact and lightweight, it's a fast, economical fire-fighting tool that provides maximum protection for the man handling it. For complete details on the Rockwood SG-60 WaterFOG Nozzle and other Rockwood equipment described on this page, send coupon below.

Massachusetts native and WPI graduate Howard G. Freeman's ingenious design for a firefighting nozzle that could discharge a straight stream or a "fog" pattern greatly improved shipboard firefighting for the Navy. After World War Two, these nozzles became popular with the American fire service. This advertisement is from a 1959 issue of Fire Engineering.



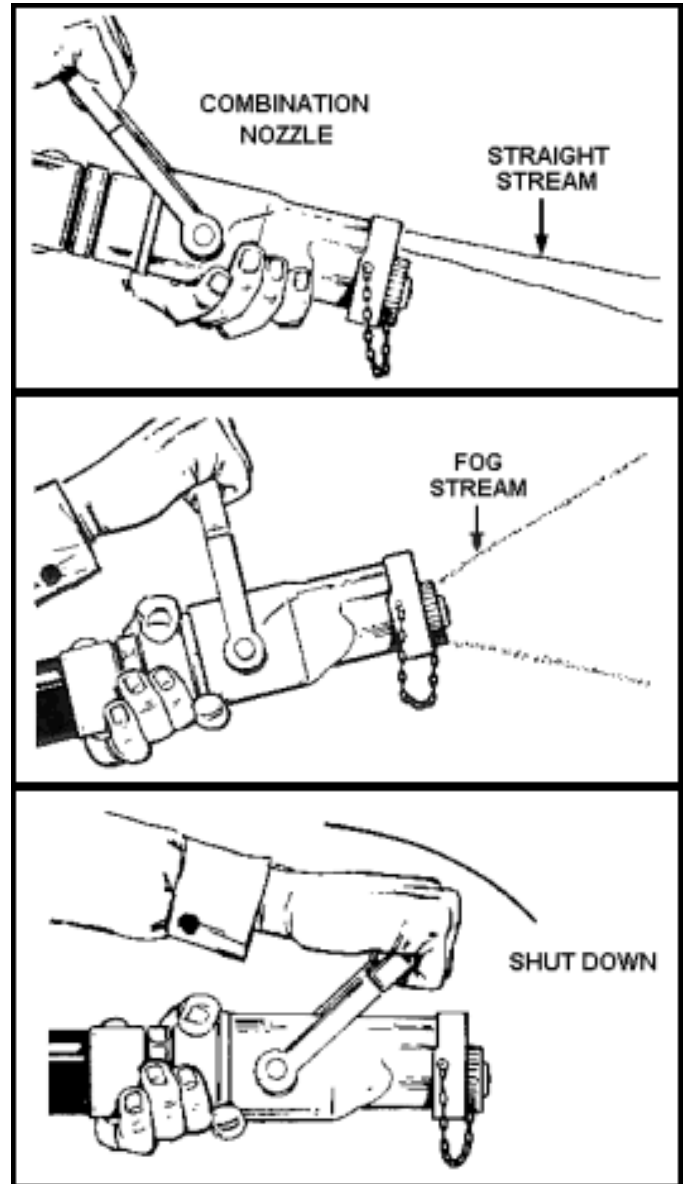
Oil-fed fires, in, on and around American battleships at Pearl Harbor are seen raging on the morning of December 7, 1941.

Starting with the carnage at Pearl Harbor, early naval actions revealed that traditional firefighting nozzles were ineffective against fuel-fed fires on damaged warships. Fuel-fed fires were a very significant problem with aircraft carriers, of which the U.S. Navy had precious few left in 1942.

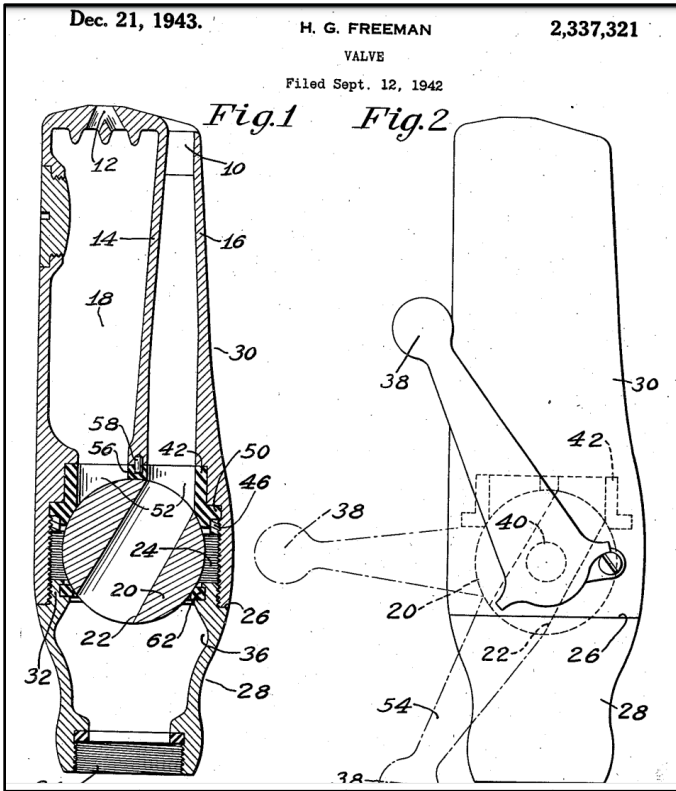
The Navy approached Rockwell and several other companies about developing an improved method of shipborne firefighting. Freeman and a senior Rockwood employee were sent to a conference in Washington, D.C., to meet with Navy officials. Freeman's work on fog nozzles was exactly what the Navy needed. In preliminary testing in Norfolk, Virginia, the nozzles were, in Freeman's words, "spectacularly effective." The Navy rushed Freeman's design for a fog nozzle into production and into service.

Fog nozzles have several significant advantages over smooth bore or straight stream nozzles. Water that was discharged through a fog nozzle is dispersed in a wider pattern of smaller droplets. These smaller droplets absorbed much more heat than a more compact straight stream of water. The wide water pattern of a fog nozzle also would shield firefighters from a fire's intense heat. This allowed firefighters to operate better in the confined spaces inside a burning ship.

Freeman's design was especially innovative. The nozzle was made of cast brass. It used a ball valve to allow firefighters to select between a fog pattern or a traditional straight stream. The Navy and the Coast Guard soon developed new tactics to exploit the full potential of these versatile nozzles.



The illustrations show the ease of operation of the fog nozzle developed by WPI graduate Howard G. Freeman.



This is an excerpt from Freeman's 1942 patent drawing for his fog nozzle. The true innovation was the ball valve, which would direct the flow of water to either the straight stream discharge or the fog pattern discharge.

Freeman's 1942 design was patented in 1943. The fog nozzle is credited with saving many ships and thousands of American lives. After the War, fog nozzles found their way into the civilian fire service. In many civilian fire departments, these nozzles were called "Navy" nozzles.

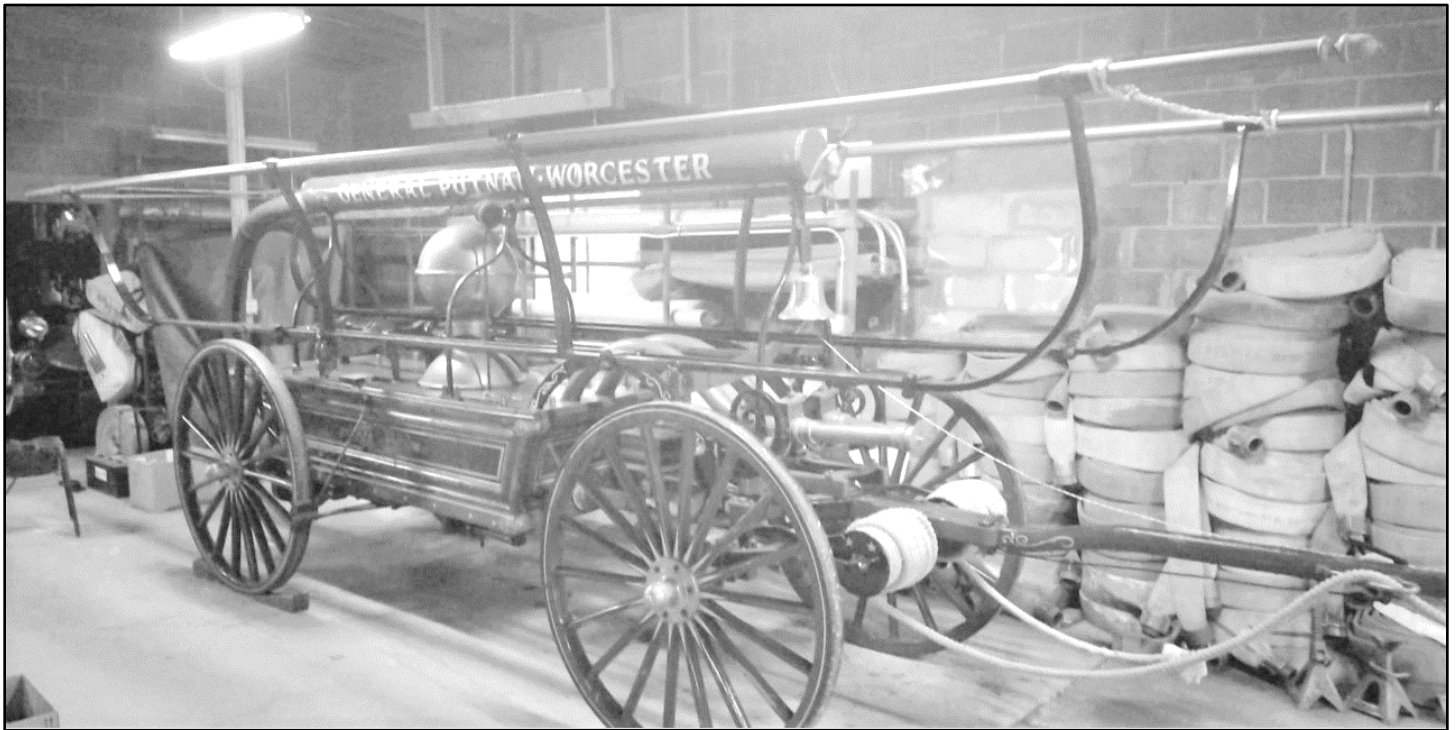
Freeman left Rockwood in 1954. He had 22 inventions in his 14 years with the company. He then founded the Jamesbury Corporation in Worcester. Jamesbury became one of the leading manufacturers of ball valves. In the late 1950s, Jamesbury valves were used on the first generation of the Navy's nuclear submarines. In 1961, Jamesbury valves were used by NASA on Mercury spacecraft. By 1980, the company had more than 1200 employees and was among the largest employers in Central Massachusetts. In 1984, Freeman sold the company.

Freeman served on the WPI Board of Trustees from 1969 through the 1990s. He held more than three dozen patents. Freeman's life was as long as it was productive. He passed away on July 22, 2015, at age 96.



U.S. Navy personnel are seen here using fog nozzles to fight a fuel-fed fire on the deck of the aircraft carrier USS Saratoga after she was struck by a Kamikaze on February 21, 1945.

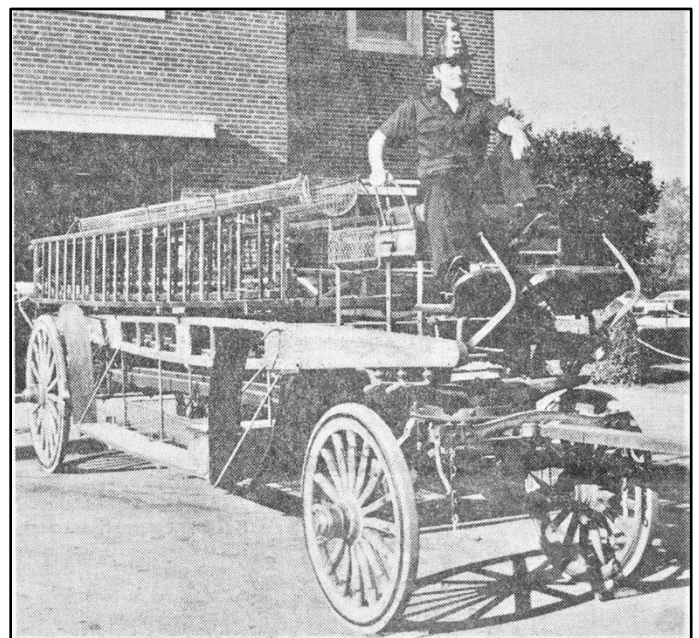
Recent Additions



There have been some recent additions to the Museum's apparatus collection that have added some unique pieces for the Museum to share and interpret.

The Museum has received on loan from the Worcester Fire Museum and Educational Center two pieces of apparatus as well as many small artifacts. The first is "The General Putnam," an 1871 crane-neck side-stroke fire engine that was built by Button and Son of Waterford, New York. This engine was delivered to Danvers, Massachusetts, where it was named after General Israel Putnam, who was born in Danvers and was one of the Patriot commanders at the Battle of Bunker Hill. In 1878, this engine was sold to Weymouth, Massachusetts. In 1891, it was sold to the Worcester Veteran Fireman's Association. It was exhibited at the Cape Cod Fire Museum in Brewster, Massachusetts, in the 1990s. When that museum closed, the General Putnam was returned to Worcester.

The second piece on loan from Worcester is an 1894 Seagrave horse-drawn city service ladder truck. It served in Worcester as Ladder 6 through 1923. It spent the next 52 years in a barn before it was donated back to Worcester, as seen in the 1975 newspaper photo below.





This 1984 Maxim pumper was donated by the Danielson Fire Department.

The Danielson Fire Department in Killingly, Connecticut, donated a 1984 Maxim pumper that was retired in 2022. This pumper has a 1750 gpm pump and a 500 gwt. It was designed to work as a hose tender and could carry more than 2000 feet of LDH. It has the Maxim "Mauler" cab. This bears a strong resemblance to the F Model cab, but technically it is the successor to the F Model. It has a Detroit Diesel engine and Alison automatic transmission.

Next, is a 1976 F Model pumper that was donated by the Town of Athol, Massachusetts. This 1500 gpm pumper was rebuilt in 1994 by Middleborough with aluminum body and the cab was modified to four-door. Its rectangular front light bezels reflect that Middleborough was a Sutphen dealer. Like the Danielson pumper, Athol has a Detroit Diesel and Alison automatic transmission. It was retired in 2022.

The Museum's Board of Trustees wish to extend their sincere appreciation to the Danielson Fire Department, the Worcester Fire Museum and Educational Center, the Town of Athol for their generosity and support for the Museum.



This four-door Maxim pumper was donated by the Town of Athol.

There are several additional donations of historic fire apparatus that are in the works or coming to fruition as this issue is being completed. These donations will be featured in the next *Fireguard*.

The Museum Board welcomes donations of apparatus. Priority now is being given to pre-1950 apparatus.

Visit the Virtual Fire Museum



The Virtual Fire Museum has been an online success. The Museum's "exhibits" are photo essays that explore much more than just fire apparatus. The collection of pieces now includes 20 "exhibits." These tell the stories of great fires, fire apparatus, technology, New England industry, and, of course, firefighters. These also explore the interrelationships between these topics.

As of mid-May, the exhibits in the Virtual Fire Museum include:

A Very Brief History of New England Firefighting

Some Great New England Fires

Made in Maine: D.E. McCann & Sons Fire Apparatus

Twenty Years Later: Remembering the Station Nightclub Fire

New Bedford's Electric Aerial Ladder Trucks

Nantucket's Great Fire of 1846

The First Electric Powered Fire Engine

New London's Steam Powered Combination Wagon

The Knox Type 8 Motor Pumping Engine

The Boston Experiment

New England's Darkest Day

Boston's Fallen Chief: William T. Cheswell

Built in New England: ALCO Fire Trucks

Chemical Fire Engines

The First Motor Pumping Engine in New England



Fire Horses

Becoming a Fireman

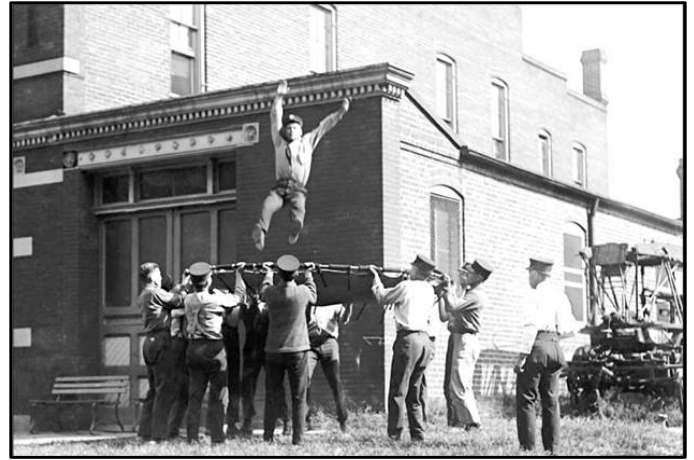
Firefighting in 1900

The Continuous Duty System

The Great Fires of 1947

New pieces are being added regularly. Future pieces will explore the Merrimack Street Fire, hand tubs, the Brockton Metropolit fire engine, firehouses, Springfield's electric fire apparatus, the "Providence" aerial ladder, the Strand Theater Fire, the Great South End Ground Fire, Chief John S. Damrell and much more.

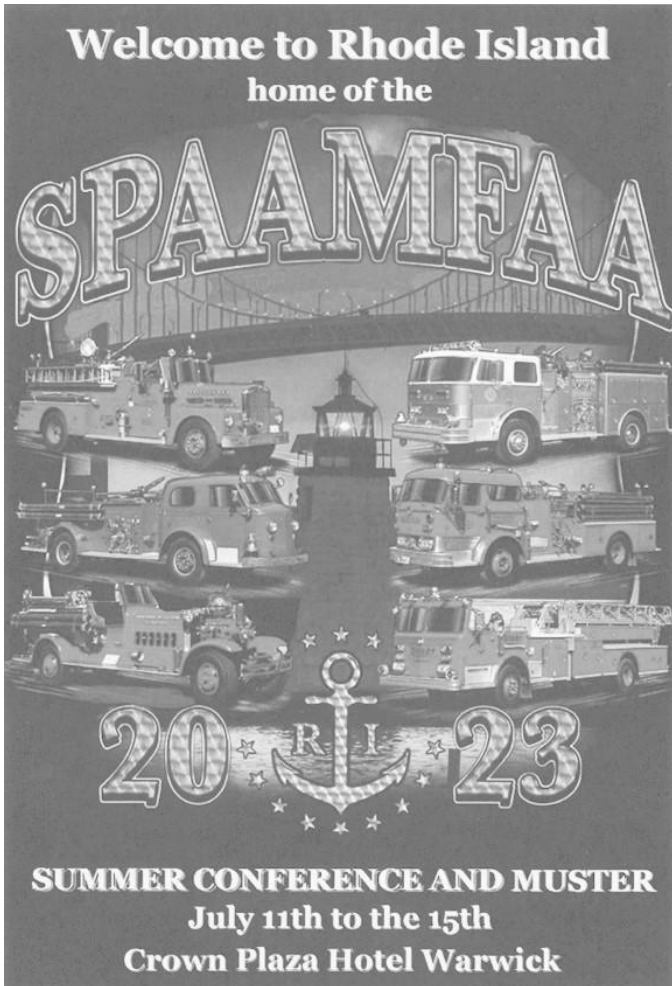
We welcome you to visit the Virtual Fire Museum. Admission is free and the Virtual Fire Museum always is open!



Pictured from left, top to bottom.

- 1. A Knox Type 8 motor pumping engine*
- 2. Fire Horses pulling a ladder truck*
- 3. Firefighters circa 1910*
- 4. A McCann Fire Engine from Exeter, N.H.*
- 5. An ALCO tractor pulling a ladder truck*
- 6. The Great Nantucket Fire*
- 7. Firefighting training circa 1925*
- 8. Boston after the Great Fire*
- 9. The 1906 American-LaFrance Type 3*

The 2023 SPAAMFAA Summer Conference



The 2023 SPAAMFAA Summer Conference and Muster will be held at the Crowne Plaza Hotel in Warwick, Rhode Island, from July 11 to 15. Among the events included in the program are tours of several fire museums. These include the Greenwood Fire Museum in Warwick, the East Greenwich Fire Museum, the Cranston Volunteers Museum, the Central Volunteer Fire Museum in Seekonk, Massachusetts, and the "Wires & Fires" Antique Fire Truck Museum on Aquidneck Island.

Several seminars will be presented. These include the History of the Providence Special Hazards Unit presented by active and retired members of the unit, as well as the 1989 Riverside Mill Fire, which will be presented by retired Deputy Assistant Chief Bill Giannini. On Saturday, there will be the flea market and muster. The NEMOFF Mobile Museum will be at the muster.

For more information about the 2023 SPAAMFAA Summer Conference and Muster visit SPAAMFAA.org or use this QR code. This should be a great event! We hope to see you there.



Remembering the Station Nightclub Fire

If you are attending the 2023 SPAAMFAA Summer Conference in Warwick, take a few moments to remember the 100 people who perished 20 years ago at the Station Nightclub Fire. The site of the fire now is the Station Fire Memorial Park. Located at 211 Cowesett Ave, West Warwick, the park is just 4.5 miles from the host hotel.

Membership in the Museum

Please help support the New England Museum of Firefighting by becoming a member. Your membership will not only help the Museum preserve and share New England's rich firefighting heritage and will entitle you a copy of the Museum's quarterly newsletter, *The New England Fireguard*.

Name _____

Email Address _____

Mailing Address _____

City _____ State _____ Zip Code _____

Are you a member of National SPAAMFAA? _____

Are you a member of a SPAAMFAA chapter? _____

If so, which chapter(s) _____

Year of birth _____ Are you a firefighter? _____

YES! I want to become a member of the New England Museum of Firefighting.

\$ 20 Annual Membership

\$ _____ Additional Donation to the Museum*

\$ _____ Total enclosed

Please mail this form along with your check payable
To *The New England Museum of Firefighting* to

The New England Museum of Firefighting
P.O. Box 252
Adams, Massachusetts 01220



You also can become a
member online at
www.NEMOFF.org/Membership
or by using the QR code above.

*The New England Museum of Firefighting is a Massachusetts not-for-profit corporation and is a 501(c)(3) entity.

The New England Museum of Firefighting

P.O. Box 252

Adams, Massachusetts 01220



Brockton, Massachusetts, operated this 1931 Ahrens-Fox Model 85-6-1 tractor-drawn aerial ladder truck as Ladder 2. Ladder 1 operated an identical 1930 model. Remarkably, both trucks survive. Both are owned by Andy Leider of New York. Both have a Dahill pneumatic hoist system for the aerial ladder. This system was invented by New Bedford Fire Chief Edward Dahill. The story of Chief Dahill's ingenuity is featured in this issue.



This is a close up view of the Dahill hoist on a 1927 Ahrens-Fox tractor-drawn aerial ladder truck that served in Kansas City, Missouri. The original Dahill design used one air tank on the turntable. Chief Dahill improved his design but putting two tanks on the frame of the ladder trailer, making the ladder easier to climb and creating a redundant system for safety.