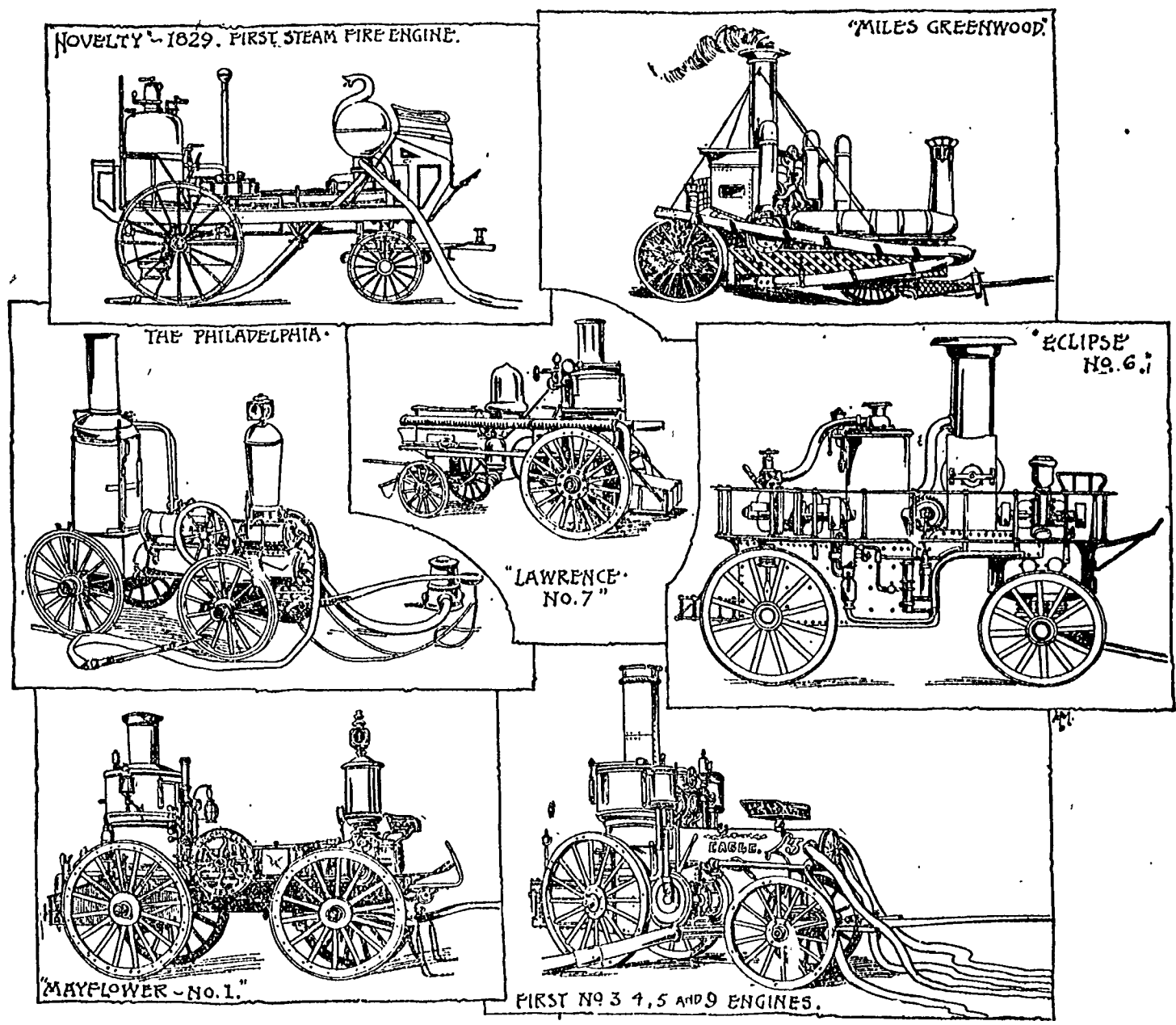


# STORIES OF BOSTON'S FIRE DEPARTMENT.

## The Hub Was the Second City on This Continent to Purchase a Steam Fire Engine and the First to Change from Hand to Steam Extinguishers—First Steam Fire Engine Was Designed by Capt Ericsson.



Boston was the second city on this continent to purchase a steam fire engine, and the first to change its fire department from hand to steam entirely.

The first steam fire engine, the Novelty, was designed by Capt John Ericsson and built by George Braithwaite of London in 1829. It weighed two and a half tons, and was used in London by its builder for a short time, when it was declared a failure, as were several others built by him, including the Comet, built in 1832 for the king of Prussia for use in Berlin.

The second was built by Paul Hodge of New York city in 1841, and tested in the presence of a vast number of people in front of the city hall, March 27 of that year. It threw three magnificent streams over a flagpole and was approved by a great many. It was purchased by the insurance companies of that city and operated by the Fire Engine company, No. 28, for a few months and abandoned as impractical on account of its excessive weight, about eight tons, and ended its career as a stationary engine in a box factory.

The third engine, which was the first successful one, was invented by Moses Latta and built by Miles Greenwood of Cincinnati, and placed in active service in that city Jan 1, 1853, when it remained until Dec 1, 1855, when it exploded while being tried killing the engineer and demolishing itself. A defective firebox was the cause of its explosion. It was named "Uncle Joe Ross" in honor of the alderman who introduced the order for its purchase.

To ex Chief Miles Greenwood, Cincinnati belongs the honor of having constructed the first successful steam fire engine and establishing the first full paid fire department in America.

The success of that engine induced the Boston city council, Feb 21, 1854, to appoint a committee to go to Cincinnati and inspect its operation in service and examine into its construction and adaptabilities. The committee, consisting of Aldermen George Odiorne and Councilmen J. E. Whittemore, Stephen Tilton Jr., Samuel Hatch, W. G. Mayo and Thacher Beal, with W. C. Wright, a mechanical engineer, and assistant engineer Elisha Smith Jr, a practical fireman, went at once to that city, and on April 7 reported to the city council very much in its favor, and urged the purchase of one for Boston. Engineer Smith favored their adoption, provided they could be made two or three tons lighter. The "Joe Ross" weighed 7 1/2 tons, as was necessary to make them practicable, as was afterwards demonstrated.

April 17 the city council appropriated \$3000 for the purchase of one, and the Boston city council, Feb 21, 1854, of Cincinnati, who succeeded Mr Greenwood in their manufacture, he having been appointed chief of the fire department of that city.

The engine named Miles Greenwood, in honor of the inventor of steam fire engines, after having been exhibited and operated at Washington, Baltimore, Philadelphia and New York, arrived at Boston Feb 21, 1855, 10 months after it was ordered, and was damaged in a condition, due to contact with a railroad bridge at New Haven.

In each of the cities in which it was exhibited it encountered a hostile opposition from the volunteer firemen, and in New York the most powerful hand engine in the city, Exempt 42, known as the Hay Wagon, was a contestant with it and defeated it some 15 feet in distance playing, to the great satisfaction of the firemen, but in every other way the steam engine was superior.

Its Boston exhibition took place at corner of Tremont and Park sts, Saturday afternoon, March 3, in the presence of 15,000 people, including firemen from all sections of the city. Engineers Perkins 2, Howard 7 and Tremont 12, all second-class Hunneman machines, were contestants with it playing a perpendicular stream up the Park st church steeple, and as in New York, Philadelphia and New York, it was the best showing at distance playing, but in quantity of water thrown and continuous service the steam machine was much the superior and demonstrated clearly that steam was much better than muscle in operating a fire engine. It was equal to six hand engines in capacity.

It was located in the old city stables on Harrison av, near Brookline st, but not placed there. The first large fire after its arrival was the Battery wharf conflagration, April 27, 1855, and much criticism was made because it was not then called into service. It was in the hands of the fire committee at the time, and they have no reason why it was not used. It was freely inferred that the opposition of the firemen and others was the cause.

It was not until almost 14 months after its arrival that it performed its fire service. Its first duty was at the burning of the Gerriah market on Sudbury st, between Portland and Friend sts, Saturday, April 12, 1855. This was a large six-story brick building, the fire originating in the upper story, about 1 o'clock, noon, and was wholly destroyed. This engine had just been partially rebuilt by a Boston concern under the supervision of John Charles, and it was tested that afternoon. It was still in the hands of the fire committee, and by request of Mayor A. H. Rice, Chief Elisha Smith Jr of the fire department ordered it into service. It then had neither company nor engineer, but volunteers were plenty, and at 2.30 o'clock, 10 minutes after its arrival, it

commenced to work, and for some 23 consecutive hours it threw two magnificent large streams onto the ruins, which won the admiration of all who saw them and converted many opponents in its favor. It was located in Haymarket sq, trafficking from a cistern which was supplied by lines of hose from a number of nearby hydrants. It could and would be used for four streets instead of two and had there been sufficient large hose therefor.

It was claimed that if the "great squirt," as it was called, had responded promptly on the first alarm that the fire could have been confined to the two upper stories.

It was prepared for service soon after the fire, and May 29 a company, of which Henry H. Drayton was foreman, William Lovell assistant and Francis Hall clerk, was organized for it.

Its second fire was the Gray's wharf conflagration, at 3.15 o'clock p m July 3, 1855. At 3.30 a special call on the fire alarm telegraph system called it into service, and 10 minutes later it arrived at the fire. It experienced much trouble in getting to work by a suction coupling being defective, pump valves out of order and lack of fresh water for the boiler. It was about 1 hour before it commenced to work, and was in service for an hour and a half playing on the ruins.

Its third and last duty was at the North and Clark sts. fire and holocaust at 3 o'clock in the morning, 1856. It was called at 3.30 o'clock, but did not arrive until 5.20 o'clock, owing to inability to get horses to draw it, for which the fire committee had been several times requested to provide by chief Smith and his assistants. It was at work after its arrival it worked at night, and for several hours relieved the hand engines in wetting down the ruins.

Nine persons, including several firemen, lost their lives at the fire.

Owing to its great weight, nearly eight tons, it was not a practical fire engine, and Aug 1, 1857, its company was disbanded and it went out of service. In March 1858, the city council authorized the purchase of a new engine, and on Oct 21, 1859, it went to Manchester, N. H., in part payment for an Amoskeag steam fire engine, and was there demolished.

Its cost the city not far from \$25,000, and never saved a dollar's worth of property, its entire service being on the ruins. It paid for itself, however, in another way. It demonstrated that steam power for fire engines was a successful one, and its introduction and improvement enabled the city, a few years later, to entirely change its fire apparatus from hand to steam.

Philadelphia was the third city to possess a steam fire engine in 1855, and New Orleans next, the same year, followed by St Louis, Louisville, Pittsburgh, Columbus, O, and Seneca Falls, N. Y., in 1857, Baltimore, Chicago and Detroit in 1858, New York, Providence, Manchester, Portland and Fall River in 1859, and many other cities in 1860.

In March, 1858, the city council adopted the following: Resolved, That it is expedient for the city to purchase a steam fire engine, and that the chief engineer be authorized to obtain such engine, and to report thereon to the city council and chief engineer of the fire department.

Several engines were then in process of construction in Boston and other cities, and to determine which of them when completed was best adapted to the city's requirements the city council in July appointed a special committee to conduct a public exhibition and test of all such machines. Alderman Joseph M. Wright, subsequently mayor, was chairman of the committee.

The exhibition took place Tuesday, Aug 21, 1858, at the western end of the Frog pond, in the presence of the presence of Gov N. P. Banks, Mayor F. W. Lincoln Jr and thousands of others from almost all sections of the east.

There were eight entries, but only half that number put in an appearance, one, the invention of J. B. Johnson, of East Boston, who afterwards made many at Portland, Me, met with an accident the day and those built by the Lattas of Cincinnati, Pool & Hunt, of Baltimore and Silsby Myndorse & Co of Seneca Falls were unable to get here in time to compete.

Those competing engines were: Philadelphia, built by Reaney Neafe & Co of Philadelphia, with 10 1/2-inch steam cylinder, 6-inch water cylinder and weighing 865 pounds; Elisha Smith Jr, built by G. M. Bird & Co, East Boston, with 10-inch steam and 6 1/2-inch water cylinders, and weigh 856 pounds; Lawrence, built by Scott & Bean of Lawrence, Mass, with 8-inch steam and 6-inch water cylinders, weighing 7570 pounds; New Era, built by Boston Locomotive works, with 12-inch steam and 6-inch water cylinders, weighing 9915 pounds.

The city appropriating \$300 to conduct the exhibition, the insurance companies raised \$1250 for prizes, etc, the amount of prizes being \$500 first, \$300 second, and \$200 third.

The rules provided that the contests would be decided on points: 1, simplicity of construction and tendency to keep in working order the longest time; 2, weight as compared with effective power; 3, time in generating steam from cold water to 60 pounds, and the amount of pressure gained when delivering water in the greatest quantity, and the greatest amount of water delivered into tank in a given time; 4, the greatest vertical height of stream and the longest

horizontal distance of delivery; 5, best workmanship, with regard to service and durability; 7, price at which engine can be applied.

The rules governing the contest provided that it should commence at 8 o'clock a m, and each tried in turn, to be decided by drawing for position; each to be provided with Ashcroft's gauges, which were to be taken off when finished and tested; all playing to be through 200 feet of hose; distance playing to continue five minutes; all to play simultaneously for two hours through a 1 1/2-inch nozzle to test steam jet watered in large figures on each, every 10 minutes; steam pressure in all contests not to exceed 120 pounds; open hose not to be used and nozzle size to be determined by the committee, but not to exceed 1 1/2 inches; if an accident occurs another test to be allowed when remedied; owners to produce certificate of weight from weigher of north city scales. Entries close at 3 p m, Aug 20.

The tank was of 2500 gallons capacity. The perpendicular playing was up the flagstaff on the hill where soldiers' monument now is, the distance being indicated by swinging vanes, one foot square, one foot apart, with number of feet wanted in large figures on each. The base of the pole was nine feet higher than the ground on which the engines stood at the pond. The horizontal measurements were made by a carriage 20 feet long and three wide, with hooks two feet apart to catch the drops of water, and the distance indicated by iron stakes every 10 feet over 120 feet from nozzle. The nozzle was lashed to an upright support.

Extra tank in riveted leather hose was made especially for this contest, as it was considered doubtful if the ordinary hose of that time would stand the pressure.

The committee served as judges with superintendent J. H. Stearns of the fire alarm telegraph system as timekeeper. Chief George M. Bird of the fire department was manager, and Tremont 12 hand engine company supplied the outfit with water for the test.

The contests commenced promptly on time and continued until dark, the order of playing being Philadelphia, New Era, Lawrence and Elisha Smith.

The result was as follows:

Philadelphia—Sixty lbs steam, 11m 5s; filled tank in 3m 25s, steam pressure at close 65 lbs, water pressure 160 lbs; horizontal play 163 feet, steam pressure at close 76 lbs, water pressure 155 lbs; perpendicular play 110 feet, steam pressure at close 80 lbs, water pressure 160 lbs.

Lawrence—Sixty lbs of steam, 10m 20 1/2 s; filled tank in 3m 35s, steam pressure at close 100 lbs, water 140 lbs; horizontal play 154 feet 6 inches; steam pressure at close 120 lbs, water 155 lbs; perpendicular play 110 feet, steam pressure at close 110 lbs, water 140 lbs.

Elisha Smith—Sixty lbs steam, 13m 5 1/2 s; filled tank in 3m 25s, steam pressure at close 65 lbs, water 160 lbs; horizontal play 155 feet, steam pressure at close 105 lbs, water 175 lbs; perpendicular play 125 feet, steam pressure at close 105 lbs, water 150 lbs.

New Era—Sixty lbs steam, 18m 2 1/2 s; filled tank in 4m 58s, steam pressure at finish 95 lbs, water 160 lbs; horizontal play 155 feet, steam pressure at close 76 lbs, water 160 lbs; perpendicular play 90 feet, steam pressure at close 60 lbs, water 120 lbs.

The Philadelphia excelled in horizontal playing, the Lawrence in raising 60 pounds of steam and steam pressure at close of each contest, the Elisha Smith in perpendicular play and water pressure at close of both horizontal and perpendicular playing, and New Era in filling tank. The Philadelphia and New Era tied for water pressure at close of tank contest.

Owing to lateness the two-hour contest was changed to one-hour, the result being:

Philadelphia—Sixty lbs steam 12m, mean steam pressure 85 1-9 lbs, mean water pressure 133 1-3 lbs.

Lawrence—Sixty lbs steam 12m, mean steam pressure 106 5-12 lbs, water 117 1/2 lbs.

Elisha Smith—Sixty lbs steam 16m, mean steam pressure 67 10-11 lbs, water 117 3-11 lbs.

New Era—Sixty lbs steam 18m, mean steam pressure 65 2-11 lbs, water 75 lbs.

In this contest the Philadelphia and Lawrence tied on steaming; Lawrence won on steam and Philadelphia on water pressure.

The committee decided that the Philadelphia was the simplest constructed, best mounted and second best in weight, power and boiler; the Lawrence, the smallest and best boiler, best in weight and power, but defective in running gear. The Elisha Smith had the best gear and third best boiler. New Era substantially built, but did not compare with others in any way.

They awarded first prize to the Philadelphia, second to the Lawrence and third to Elisha Smith Jr. They also awarded the New Era \$150 as a gratuity, and \$100 to James Boyd & Son for hose that stood the severe tests without bursting, which was a very rare occurrence in those days.

The following day there was a running test in which the New Era did not compete, and no prizes were given. Each engine was to start five minutes apart from the Lawrence at gate, run around the common via Charles st, to starting point, run to Frog pond, firing up on route, and play as they pleased for one hour; time taken from start to time commenced to work: Philadelphia, 12m 25s; Lawrence, 17m 4 1/2 s; Elisha Smith, 18m 4s. No record was made of playing.

Of the four engines in that contest 42

years ago, one, the Philadelphia, is now in existence, and occasionally in service, and is the oldest steam fire engine extant. It is now owned by the underwriters fire patrol of Philadelphia, and named Pioneer. It was built in 1857 for the Philadelphia hose company and used in active service for a number of years. It made its second visit to Boston in December, 1853, as an exhibit in the Knibbs-Norton valve case, and made an exhibition play on the common where a quarter of a century before it won its greatest laurels. It assisted materially in securing a verdict for the city in that case.

The Lawrence was purchased by the city and was the first of the Amoskeag engines of the present time. It was in active service from Jan 1, 1859, until July 22, 1862, and subsequently was sold to the Norway iron works at South Boston, where it was used for pumping purposes for some time and finally demolished.

The Elisha Smith was converted into a pliedriver engine soon after the contest, and no more built of that pattern.

The New Era, Saturday, Dec 4, 1858, had a contest with the Eclipse, mentioned elsewhere, and defeated it, playing horizontally with 165 feet to the Eclipse 161 feet. In a perpendicular contest the Eclipse was 150 feet to the New Era's 140 feet. There was to be a hydrant contest, but the New Era was so heavy that it sunk so far into the ground that it had to be abandoned. It was subsequently demolished and another built by the same concern on the same plan with improvements, and used by Mazoppa engine company, No. 1, of South Boston, from Dec 26, 1859, until Sept 17, 1872, and was known as the Rob Roy, a rotary machine named "Eclipse," built by Silsby, Myndorse & Co., of Seneca Falls, N. Y., for this contest, was not finished in time to participate, but arrived in this city in October, and was exhibited on the common and in State st. It was lighter in weight than the others, 7100 pounds.

In November, 1858, the city purchased the Lawrence and Eclipse for \$3500 each, and a contract was made with the builders of the Eclipse and N. B. Bean and Thomas Scott of Lawrence, Mass, inventors and builders of the Lawrence, to have them take sole charge of their respective machines for one year, commencing Jan 1, 1859, they to provide an engineer, an assistant engineer, a stoker and driver, who were permanently employed, and three call-hoemen, to keep the engines in repair and always ready for use. The city to furnish stations, horses and fuel, and pay \$4000 for the Lawrence and \$3200 for the Eclipse in monthly instalments. The Eclipse succeeded Melville, No. 6, hand engine, and occupied its station in Wall st. Calvin C. Wilson, now connected with the department repair shop, who was foreman of the Melville 6 company, was appointed foreman of the Eclipse, and Moses B. Bell, John Travors and Albert Stevens came from Seneca Falls as engineer, assistant and fireman, and George Scott of truck 1 appointed driver. Charles C. Geyer and Cyrus Bruce Jr of the Melville company were appointed call-hoemen.

The Lawrence succeeded the No. 7 hand engine and occupied its station in Purchase st with Thomas Scott, one of its inventors, engineer, and Moses Thompson foreman.

Each had attached to its rear the hose cart of the hand engine it succeeded, but first gave water at a fire to the hand engine that wanted it.

The first fire for both was at 7.45 o'clock a m Thursday, Jan 13, an engine, and cold morning building occupied by the Chicopee Manufacturing company and C. C. Nichols, dry goods, at 64 Federal st. The Lawrence was the first to arrive and located at a cistern, but for some reason it would not draft and was changed to a hydrant. The excuse given for its failure to draft was "dryness of suction hose," something never before or since heard of. The Eclipse, which had three hoses, got stalled in the cistern on account of snow, and the horses of a "Brighton artillery" vehicle were seized and the engine arrived in time to defeat its rival—the Lawrence on their own grounds and got first water on the fire. Boston's first full-paid firemen, except chiefs of department, who gave their entire time to the fire service, were employed on those two engines, and most of them were non-residents.

The Lawrence was retired from service July 22, 1862, and the Eclipse Dec 9, 1864.

Nov 1, 1859, steam fire engine No. 8, subsequently named Northern Liberty, J. Stover Jacobs foreman, went into service in North Bennett st, with an engine similar to the Eclipse, Dec 1, Eagle 2, Washington st, near Dover, Samuel Abbott, Sr, foreman, with an Amoskeag rotary pump machine, Dec 19, Mazoppa 1, Broadway (Haves school), South Boston, W. H. Cunningham foreman, engine Rob Roy, built by Boston Locomotive works, Dec 25, Maverick 9, Paris st, East Boston, G. A. Tucker foreman, engine Amoskeag, rotary, May 7, 1860, Harnicoat 4, under old city hall, John Tobias foreman, engine Amoskeag rotary, Sept 1, Elisha Smith 6, Marion st, East Boston, G. A. Tucker foreman, Amoskeag rotary engine, and Sept 17, 1860, S. R. Spinner 2, 4th between R and L sts, South Boston, James Chambers foreman, Amoskeag U tank engine, which succeeded the S. R. Spinney, No. 14, hand, the last to be retired.

Jan 1, 1860, Eclipse 6 and Lawrence 7 came under the city's management, and Charles C. Geyer was appointed

foreman of the former and J. Q. Alley of the latter, and their names subsequently changed to Melville 6 and Thomas C. Amory, No. 7, in honor of Maj Thomas Melville for 44 years a fireward, and ex Chief Amory.

The change from hand to steam was made during the administration of Chief George W. Bird.

When the department became entirely steam in 1860, all other cities were using hand engines, and continued to do so for some years afterward.