

BOSTON'S FIRE FIGHTERS;

HON. JOHN R. MURPHY,

ONE OF THE FIRE COMMISSIONERS

In these modern days progress is the watch-word. In no way is it shown more than in the fire service of our American municipalities. Great fires, caused by faulty buildings, constructed largely of wood, have been the necessity which spurred invention with us, so that when London and Paris remodelled their fire departments they are compelled to come to America for the most improved and practical ideas. In Boston her citizens have a department which shows the growth from the methods of years ago to those of today in a very marked manner.

A healthy body with a sound heart and lungs, the proper strength in the muscles, means a man who can breathe in smoke where a weaker one would die; one who can run and climb and withstand fatigue. If a man passes these tests and is appointed to a place in the fire department by the fire commissioners, he enters the department drill school for one month, where is made the final and most severe test of all, as to the man's courage and fitness for the service. There he is taught the rudiments of his future calling.

On a tower almost 100 feet high he learns the life drill, how to climb with a Pomper ladder and with a rope rescue a life in danger. If he passes through the school with the knowledge of his duties in theory, he is attached for five months to an active company, where he is taught how practically to apply what he has learned in school. At the end of that time, if he has

shown his fitness, he becomes a substitute fireman, and later on a full grade fireman. This system of preparing men for the department is being adopted in other large cities, but in this respect Boston is still unrivalled. The first duty of a fireman is to save life, and while ordinary ladders are used, time and again, in cases of emergency, they are wanting. Sometimes in a narrow court they cannot be raised, or if the burning building is too high they may be too short, or they are delayed in arriving, then is used the Pomper ladder, which every piece of apparatus carries.

Like the Camden House fire, a short while ago, where the lives of a large number of helpless women were in great danger, and the first piece of apparatus to arrive was a steamer, it was the case a few years ago, the men had been compelled to wait for the coming of a ladder truck, there would have been a loss of life, but on the steamer's hose wagon they lifted their Pomper ladders, and scaling the building with them, those who were in danger were rescued and saved.

The Pomper ladder is a strip of wood, from 12 to 18 feet long, iron bound, with small cross pieces to rest the foot on; at the end of the ladder, which is the ladder proper, with a belt, a riveted steel hook attached, which enables the wearer to snap on to any convenient hold and support the body while the person is climbing. The rope thrown over the shoulder; the man climbs by the small cross-piece to the first window, by catching the hook at the end of the ladder over a window sill, then standing or standing on the sill, he raises the ladder perpendicularly, and catches the hook on the sill above, when he climbs up there, and in this manner he reaches the person in danger, until he lowers down to his comrades by means of the rope carried on the ladder.

It seems almost incredible, but two members of the Boston department, with the aid of a Pomper ladder, have scaled a building 100 feet high in a matter of minutes. The use of many uses to which the Pomper ladder can be put. Suffice it to say that it is a most useful fire appliance, and its advent has supplied a serious defect of the deficiencies of modern fire ladders.

In case ladders cannot be used, the fireman comes into play. This shoots a light and a hot stream of water, which enables him to pull up a heavier one, down which he climbs, or by its aid a fireman climbs up and lowers him from danger. In case all other means fail, and the flames force one as a last resort to jump to the pavement to save his life, he is caught in a circular jumping net made of strong tarred rope and held taut by the men grasping it around the edges. While this method is not absolutely safe for the one jumping, it is far preferable to death from flames, or from being disabled to death on the pavement by jumping without its aid.

The fire department has its skimmers which are called chemical engines. They generally consist of two 60-gallon tanks, with the necessary appliances, hung on four wheels, and drawn on account of their lightness, with great rapidity. The tanks are filled with water, and in a second can be charged with vitriol and soda, which causes a pressure sufficient so that the

steam engine comes into play. Stripped of its elaborate detail, it is a boiler, with cylinders and pumps attached, which, with steam, forces the water, drawn from a hydrant, into the hose, and on a popular fallacy is that the engine weighing the most in pounds is the most powerful. Such is not the case. It is an engine with sufficient steam capacity, that is the most powerful.

A perfect engine is one that can pump the largest amount of water in the shortest time, and in the shortest possible amount of time. Celery in getting to, and the greatest possible amount of water-throwing power in working at a fire, are the demands upon the modern engine. In Boston proper, where the runs to fires are short, and the chances of an engine with sufficient steam capacity are stationed the most powerful engines.

In the more sparsely settled portions of the city, like Dorchester, Brighton, etc., the runs long, and small fires are the rule, the lighter engines are situated. This is done because it is not possible to have the larger engines with their celery long distances over heavy roads in summer and snow ones in winter. The ordinary fire requires a quantity of water having the larger a quart of diameter, thrown about 150 to 200 feet to be effective.

If the fire develops and threatens to spread, the fire streams become ones. It seems to be a well-settled fact that a small amount of water poured on a large amount of fire only adds to the intensity of the flames, and the larger the flame the more the necessity of increasing the volume of water thrown on the fire by increasing the diameter of the hose.

Boston has in service engines unsurpassed by any in America to meet emergencies of this kind. Take engine 35 as a sample. It is a 2 1/2-horse power engine, with a 3-inch diameter hose, which can join four lines of two and one-half inch hose or two lines of three inches each together, and pump out water two inches in diameter over 300 feet.

The capacity of her pumps is 1000 gallons a minute, and for exhibition playing she can throw four one-inch streams, for the Houghton & Dutton building, in Tremont st., at one and the same time.

The hose wagons, which follow the steamer in service, and carry the hose for its use, are fitted with small hand chemical extinguishers capable of putting out small fires. They also carry Pomper ladders, the men and most all the tools, which are needed at fires.

The ladder trucks are a very essential arm of the service, and are of two kinds, which range from the baby ladder to the extension, 92 feet high, which with a tip can be made still higher. To man them requires a strong man, and a good one, a man you must weigh at least 160 pounds and stand 5 feet 9 inches in height. A 65-foot ladder weighs about 500 pounds, and to pull it up requires strength, activity and judgment.

When ladders 55 to 92 feet in height are to be raised, then the turn-table trucks are used in service, and carry the ladders by means of cranks and a screw.

Modern invention has produced the water tower, which is a tub sunk into a square hole in the ground, and has a 3-inch diameter hose three and one-half inches in diameter, connected at the bottom with six lines of hose run from three angles, and at the top with a hollow arm or pipe, which is at right angles with the perpendicular tube. This arm can be worked up and down, and to the right and left by a man standing on the ground, and through its mouth, two and one-half inches in diameter, a stream of 25 gallons a minute, representing the united force of the engines, and powerful enough to tear down a brick wall, can be thrown.

The advantage of a water tower lies in the fact that a vast volume of water can be directed to any part of a building, to the extreme interior of a building on fire. The same amount of water played from the street would strike the ceiling of the story into which it was directed, and fall on the floor only a few feet from the window, and would not reach the real fire beyond. Again, the men operate a tower from the ground, and there is not that danger of men falling walls which there would be if ladders could be used strong enough to stand the strain required to support a man and his equipment, and sufficient to handle such powerful streams. No ladder half strong enough has yet been perfected which will supply the place of a water tower.

It is claimed, and experience in Boston supports the theory, that the power which a tower has to deliver so large a quantity of water at the upper end of a building, prevents the confined air from becoming superheated and thus stops hot air explosions, which are extremely dangerous, as they frequently burst or blow down the roof of a burning building, killing the men and spreading the fire.

There is no doubt of a tower's value in fighting fire in our tall buildings. It is the best means a department has in an emergency of that kind, as it practically places 25 feet in the air, directed with better results, and a water-throwing capacity equal to the steamed streams of several engines on the street.

A fire comes with a water front a most dangerous class of fires occur among the warehouses on the piers and the shipping. On the land side they can be handled only with great difficulty by running long lines of hose from the steamers. On the water side, where they can be beat out, the fires are fought by a floating engine or fire steamer, which simply pumps and discharges equipped with powerful fire pumps and

the floor by cords drawn through pulleys attached to the ceiling, and the harnesses for the horses, and coming down through openings in the ceiling are several iron poles, called sliding poles. At the rear end are a series of doors, with small square glass windows, with horses behind them. Operators in the dormitories the men are fast asleep.

You can hear the scratching of the pen when the man on patrol is writing down in the record book the happenings of the last hour.

A quiet, almost deathly in its stillness, prevails in the engine room of each wagon, as some coming from the third story of the Globe building, near State st. He rushes to the Old State House, turns the handle of the door of wagon No. 36 to the right, then opens the door and pulls down the hook inside once. Then he lets go.

That simple action is almost magical in its effects upon the fire department.

Every man and piece of apparatus is instantly on the alert. At box 36 has notified the fire alarm operator at City Hall and the men in every fire station in Boston, there is a fire near the Old State House, and the house is burning, which answers alarms from that box, the pulling of the hook works a transformation. The man's finger has hardly left when the small gong at the patrol's side rings three quick blows, pauses, and then rings six more quick blows. This it repeats four times, and the house is burning on a strip of paper like a stock ticker.

With the first blow of the gong the patrol jumps, presses an electric button, the doors in the back of the engine room fly open, the house is lit with a flood of electric light, the horses rush out under the harnesses at the apparatus to which they belong, the men, in book trousers and shirts, come whirling down the brass sliding poles, the drivers take their seats, men snap the collars on the horses' necks, and by that simple action and the pulling of a cord the men are harnessed. The patrol announces the number of the box, the engine man lights the fire under the boiler, the captain gives the word, and in a few minutes the wagon is in the streets, and in two seconds from the first blow on the gong the engine, hose wagon, and 12 men, dressed as they go, are out and away to the scene, the horse being driven away to pick him up and carry him to the scene.

As soon as the rolling of the apparatus on the pavement reaches the street, the street, drawn by powerful horses, the music of the bugle, shrill and clear, sending ahead a warning of what is coming.

The fire is out in the distance, except a faint murmur of the bugle, the silence, except the restless pawing of the three magnificent horses hitched. Business-like, the horses are hitched, the hose wagon and men, stand waiting a ready for further developments.

In the meantime the chief of the department and several of the district chiefs will be at the scene of the fire, and the driver of the district chief in whose district the fire has been received. If the small gong had failed to work, the apparatus would have waited for the notice from the operator on the second gong, and in

general, 12 blows, twice, followed by the box number, come next, if the magnitude of the fire warrants it.

The system of covering in is still used in these alarms. Even the regular alarm, which means a conflagration and is struck on an average only once in ten years and calls almost the whole department into service, and the apparatus sparsely scattered over the city, sufficient to cope with the ordinary fires that may occur.

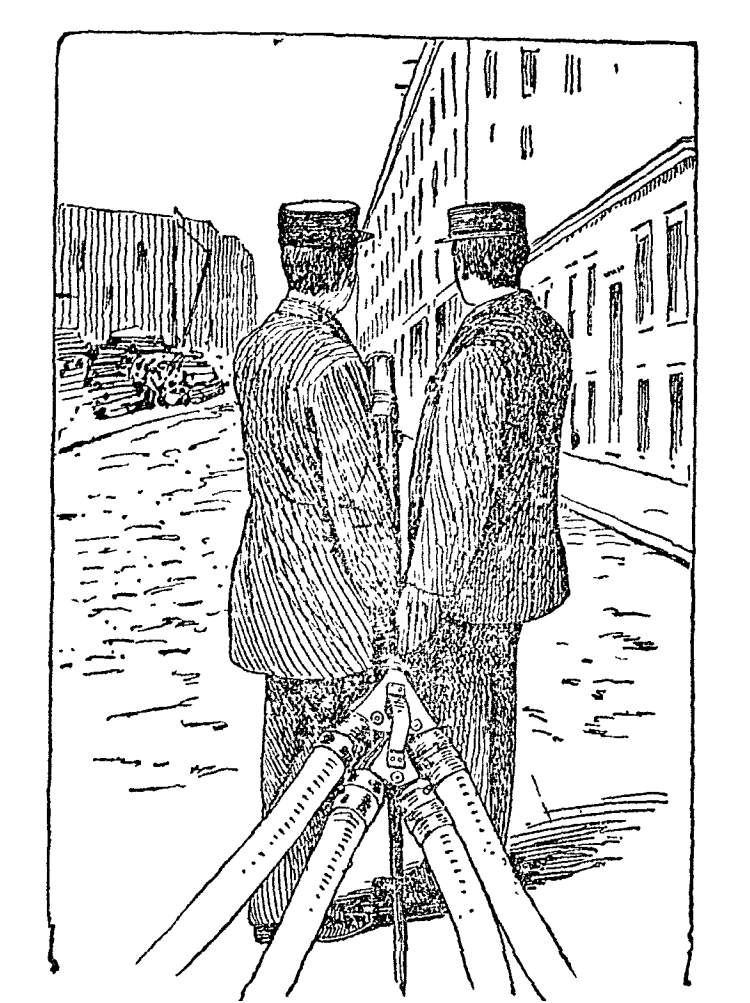
The fire to have at box 36 only called for a third alarm, with an extra water tower and an engine, which the fireman on duty at the box telegraphed for, and they were summoned by the fire alarm operator by telephone or signal blows struck on the gongs in the houses.

When the fire is out the fact is telegraphed to the fire alarm operator, who strikes two blows four times, followed by the box number, on the small gong. All apparatus return to their proper stations, and another alarm comes from the same section, the department know that the proper apparatus is ready to reply to the next need of the covering apparatus to respond.

At second and third alarms the department veterinary surgeon comes to look after the horses, the superintendent of repairs to attend to repairs and the coaling of the engines, and experts to supervise the running of the engines and to assist in any plumbing mechanical needs, and so forth. Under the system of covering in use by the Boston fire department, all parts of the city are protected, and in case of a second great fire in another portion of the city, as was shown last Christmas eve, when three fires were handled at the same time with the apparatus in service, the apparatus is close at hand, and is able to render a good account of itself.

The method of having a telegraphic and telephone connection with the rest of the force by means of the fireman at the box, where the fire is, enables the chief or other in command to call what aid he needs immediately, and he is informed, if there is a fire elsewhere, to send apparatus from the first to the second fire, if it is necessary, and he has it to spare.

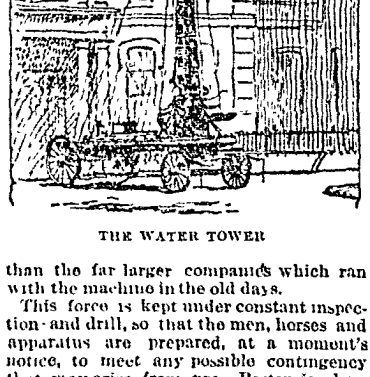
The Boston fire department has had under consideration for some time the improvements in her system of covering in, but they cannot be put in practical use until the new apparatus, for which horses are building, comes into service, which will be a very different thing which speaks well for the Boston fire department, and which is a very silent but a very important improvement in the new city.



WAY SIAMESE.

ers, who have full control of the force; the chief of the department, who is the executive officer of the commission, and, when present, has command at all fires; 10 district chiefs and one chief of each of the 10 districts, each of whom has charge of a designated district; a superintendent of repairs, and a veterinary surgeon; in all, including officers and men, about 700, and of these about 160 are call men, who only are on duty at a fire.

There are 38 engine companies, two of which are double, in all 40 engines in active service; 17 ladder companies, 10 chemical engines, two water towers, and six hose companies. A captain, lieutenant and 10 men constitute a full engine or ladder company, and with the aid of steam, horses and modern appliances, they accomplish more

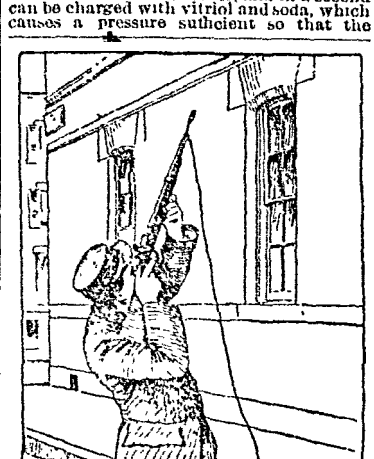


THE WATER TOWER

than the far larger companies which ran with the machuio in the old days.

This force is kept under constant inspection and drill, so that the men, horses and apparatus are prepared, at a moment's notice, to meet any possible contingency that may arise from fire. Boston is a hazardous city from a fire standpoint. Narrow streets and courts, with tall and poorly constructed buildings, increase the danger from fire very much. The rise and fall of the tide necessitates fighting many fires at times on the water front from the land side, as the fireboat cannot be used on account of the low water.

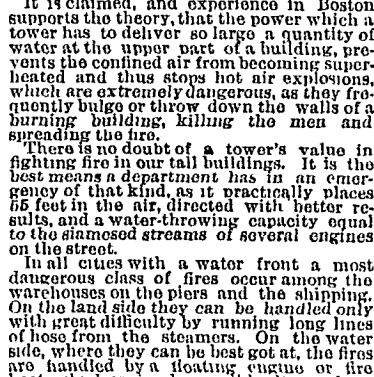
The city is not compactly laid out either, many important sections being almost cut off from the main city. Take East Boston, Charlestown, South Boston and Brighton; they are cut off by water, or by land, completely. Everything in Boston seems to combine to make it necessary to have a fire department extraordinarily strong in apparatus, discipline and effectiveness. No city in the land is hampered with the disadvantages that beset Boston. While in New York and Chicago buildings are poorly constructed, like Boston, yet their streets are wide, and the cities themselves are compact, and at all times they can use their floating engines at fires along the water front.



CLIMBING THE LIFE LINE.

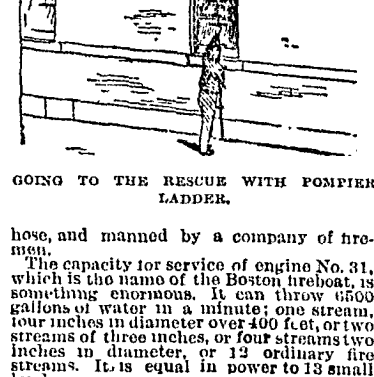
In joining the Boston Fire Department today, a man enters upon a life's profession. The preparation that he goes through is very thorough, and inures, as near as possible, a man perfect physically and otherwise, for the duties which he is to perform. Experience has shown that the nearer you come to a man who combines health, strength and intelligence without surplus bodily weight, the more perfect fireman you have.

In order to get as near perfection as possible, the candidate for the fire department must pass a rigorous series of examinations. The civil service examiners test him in simple writing and arithmetic, with questions of such a nature as would show his general intelligence. But after that he must pass the doctor to show his physical soundness, and then comes the gymnasium test, which is very searching, testing the lungs, heart and the strength of every muscle. He must weigh, stripped, at least 150 pounds, and be not less than 5 feet and 6 inches in height. For every inch over



GOING TO THE RESCUE WITH POMPER LADDER.

hose, and manned by a company of firemen.

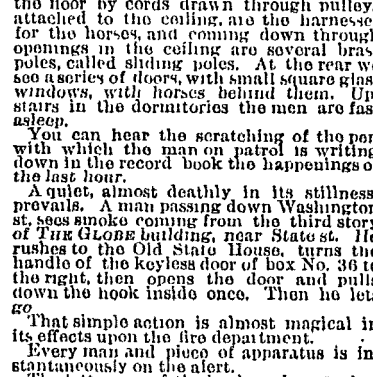


THE FIRE BOAT-ENGINE 31.

The capacity for service of engine No. 31, which is the name of the Boston fireboat, is something enormous. It can throw about 1000 gallons of water in a minute; one stream, four inches in diameter over 400 feet, or two streams of three inches, or six streams two inches in diameter over 150 feet. It is equal in power to 13 small land engines.

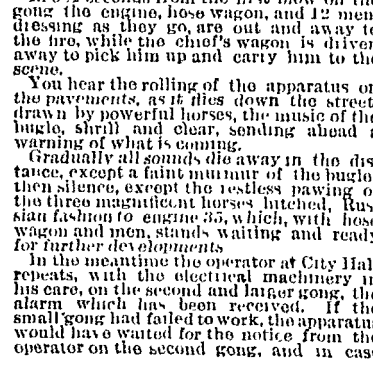
The department also has its school of telegraphy, where members are educated in writing with the Morse key and receiving with the sounder. In case of emergencies, they are detailed at fires to send messages and commands by telegraph to companies in the fire line. They are to the fire department what the signal corps is to the army.

Boston has always been noted as a mechanical city, and the inventive brains of some of the members of the fire force have evolved many important inventions, which have been invaluable to the fire department. Among the most important, which are distinctive of the fruit of Boston's genius, we may mention the system of using large fire pumps, the system of using the hose, the present hose wagon, which means, in effect, a self; that most efficient piece of apparatus, the modern fire boat, and last the fire alarm system, which is a system which a department would be well-nigh helpless to protect a city from fire.



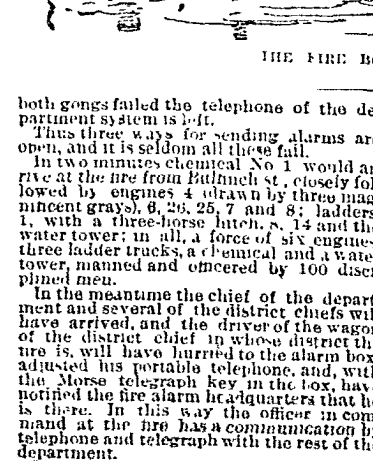
RESCUING WITH THE JUMPING NET.

Let us take a peek into a Boston fire station, and we find a man in a uniform, who is the fire alarm operator, sitting at a desk, with a telephone in front of him, and a small gong on the wall. He is waiting for the signal from the fire alarm operator at City Hall, and in



RESCUED WITH THE ROPE.

both gongs failed the telephone of the department system is left.



formed, if there is a fire elsewhere, to send apparatus from the first to the second fire, if it is necessary, and he has it to spare.

At six years of age he enters the department, is given his number, and, after years of hard work down town, is transferred to the outer sections of the city, where his labors will be lighter. There he ends his days, or, if incapacitated for work, is sold, to go upon some old farm in the country. Much might be said of the fire horse's intelligence. He learns his duties quickly, and in many cases shows feelings almost human. A pet and a companion often have been strong men whom a whole company mourn when death suddenly calls a horse—an old favorite in the service.

Apart from their duties at fires and in the fire stations, where they care for their horses, apparatus and housework in general, there are many duties which devolve upon the men of the fire department. All the outer sections of the city, and its products, and explosives of all kinds come under their charge. The department also has authority in certain emergencies over the gas, water and steam engines, and, in many cases, shows feelings almost human. A pet and a companion often have been strong men whom a whole company mourn when death suddenly calls a horse—an old favorite in the service.

From their spare the men of the great fire department, the theatre fire force during all performances. Some patrol the streets, watching for fire while their comrades at the fire stations stand ready at a moment's notice to protect from the dreaded enemy the lives and property of the thousands of people who, in the hushed stillness of the night, are sleeping peacefully, thinking of the vigilance that is watching over them.

Speaking of firemen from a Boston standpoint, it appears to me that it is a profession honorable in the extreme. The associations are good, the pay is excellent.

Every fireman must serve at least two years as a fireman or ladderman before he is eligible for promotion. On personal application to the fire commissioners, the claims of the applicant are judged from his services and record as a fireman and his ability to command men.

If the result is satisfactory the first step is that of lieutenant, salary \$1400. The next rank is that of captain, district chief, assistant chief and chief of department, with salaries running from \$1000 to \$3500 a year. All promotions are practically in the hands of the fire commissioners, the civil service requiring only that the man promoted shall be able to pass a non-competitive examination of 65 per cent, or more.

An officer must rise from the ranks. It is peculiarly a service where intelligence, faithfulness and bravery are a necessity in both rank and file.

In war the officer often points the way to the soldier to glory and perhaps death; in the fire fighting, the officer must lead and the men follow.

While the soldier is animated by the noblest instinct in the heart of man, love of country, it is not to be wondered at that he is brave, and giving battle to his hated foe. The fireman fights an enemy of the common good, and although he has not the same incentives as the soldier, yet it is all the more to his credit that in his ranks we have examples of bravery unsurpassed in war's annals.

When the time and the occasion demanded, Boston has never in the past wanted for brave men. The class of men who compose her fire service are a fair representation of the manhood of today, and, if need be, would prove her valiant defenders.

perfect, with great strength, weight and swiftness, only the kings among horses are fit to enter the fire service.