

to the art of extinguishing fires, the same as to any other profession. Of the company that he proposed to establish, he remarks, "I will take care that none but those of that business shall be admitted into it." The buildings in ancient Rome were very high, the upper stories were mostly of wood, and the streets and lanes were extremely narrow, hence the suppression of conflagrations there must have been an arduous business, and one that required only extraordinary intrepidity and skill, qualifications that could be obtained by experience. Besides engines for throwing water, the firemen used sponges or mops fixed to the end of long poles, and they had grapples and other instruments by means of which they could go from one wall to another (*Encyc. Antiq.*). Of the great elevation of the houses several Roman writers speak. Seneca attributed the difficulty of extinguishing fires to this cause. Juvenal mentions

Roofs that make one giddy to look down.

When the city was rebuilt after the great conflagration (supposed to have been induced by Nero), the height of the houses was fixed at about seventy feet. These were raised to a certain height without wood, being arched with stone, and party walls were not allowed. That fires were constantly occurring in old Rome is well known. Juvenal repeatedly mentions the fact. Thus in his third satire :

Rome, where one hears the everlasting sound  
Of beams and rafters thundering to the ground,  
Amid alarms by day and fears by night.

And again :

But, lo! the flames bring yonder mansion down!  
The dire disaster echoes through the town:  
Men look as if for solemn funeral clad,  
Now, now indeed these nightly fires are sad.

Their frequency induced Augustus to institute a body of watchmen to guard against them, and, from the following lines of Juvenal, it appears that wealthy patricians had servants to watch their houses during the night :

With buckets ranged the ready servants stand,  
Alert at midnight by their lords' command.

As every calamity that befalls mankind is converted by some men to their own advantage, so the numerous fires in Rome led to the detestable practice of speculating on the distresses they occasioned. Thus Crassus, the consul, who, from his opulence, was surnamed the Rich, gleaned his immense wealth, according to Plutarch, "from war and from fires; he made it a part of his business to buy houses that were on fire, and others that joined upon them, which he commonly got at a low price on account of the fear and distress of the owners about the event." But the avarice of Crassus, as is the case with thousands of other men, led to his ruin. With the hope of enlarging his possessions, he selected the province of Syria for his government, or rather for his extortion, because it seemed to promise him an inexhaustible source of wealth; but by a retributive Providence his army was overthrown by the Parthians, whom he attempted to subdue, and who cut off his head, and in reference to his passion for gold fused a quantity of that metal and poured it down his throat.

Among other precautions for preventing fires from spreading that were adopted in Rome on rebuilding the city, was one requiring every citizen to keep in his house "a machine for extinguishing fire." What these machines were is not quite certain, whether buckets, mops, hooks, syringes or portable pumps. That they

were the last is supposed to be proved by a passage in the writings of Ulpian, a celebrated lawyer and secretary to the Emperor Alexander Severus, wherein he enumerates the things that belonged to a house when it was sold, such as we name fixtures, and among them he mentions siphones employed in extinguishing fires. Beckman thinks the leaden pipes which conveyed water into the house for domestic purposes might be intended, but they would hardly have been designated as above merely because the water conveyed through them occasionally put out fires. This was not their chief use, but an incidental one. That they were pumps or real fire engines was the opinion of Alexander ab Alexandro, a learned lawyer of the 15th century, an opinion not only rendered probable by terms used and the necessity of such implement for the security of the upper stories, which neither public engines nor streams from the aqueducts could reach, but also from the apparent fact that syringes or portable pumps have always been kept (to a greater or less extent) in dwellings from Roman times. And a sufficient reason why they should generally be sold with the houses, might be found in their dimensions being regulated according to those of the buildings for which they were designed.

The population of Rome was so great that the area of the city could not furnish sites sufficient for the houses, and hence the height of the walls was increased in order to multiply the number of stories—"for want of room on the earth the buildings were extended towards the heavens." Portable fire engines were therefore particularly requisite, in order to promptly extinguish fires on their first appearance, whether in the upper or lower floors. In the Jatter case, when this was not done, the people in the higher stories would be cut off from relief and the means of escape. Were some of our six or seven story buildings in the narrow streets densely filled with human beings, and a raging fire suddenly to burst out on the ground floors, the probability is that many lives would be lost, notwithstanding the great number of our public engines and hose and ladder companies. Juvenal estimates the distressed situation of those dwelling above under such circumstances :

Hark! where Ucalegon for water cries,  
Casts out his chattels, from the peril flies,

Dense smoke is bursting from the floor below.

Fire engines were nearly or altogether forgotten in the middle ages; portable syringes seemed to have been the only contrivance, except buckets, for throwing water on fires, and from their inefficiency and other causes, their employment was very limited. The general ignorance which then pervaded Europe not only prevented the establishment of manufactories of better instruments; but the superstitions of the times actually discouraged their use. There is not a more singular fact (and it is an incontrovertible one) in the history of the human mind, than that the religious doctrines and opinions of a large portion of mankind should have in every age produced the most deplorable results with regard to conflagrations. The Parsees, Ghebres, etc., of Asia, and other religious sects, which have subsisted from the remotest ages, never willingly throw water upon fires—they consider it criminal to quench it, no matter how disastrous it may be; they had rather perish in it than thus extinguish the emblem of the Deity they worship. "They would sooner be persuaded to pour oil to increase, than water to assuage the flame." Among such people fire engines, of course, were never used. Another and larger part of the human race, though they entertain no such rever-