EARLY FIRE PROTECTION AND THE USE OF FIRE MARKS.

BY GEORGE CUTHBERT GILLESPIE.

The subject of this article is one about which very little has been written. In dealing with it from an historical point of view it would seem interesting to trace the matter to the earliest times.

Primitive man who ate raw meat, went to bed at sundown and whose body was enured to climatic conditions, had no use for a fire, but as community life became more popular and man became less of an animal, he appreciated more the comforts and luxuries of artificial light and heat. The use of fire was unquestionably the first indication of the dawn of civilization and the evidence that man had ceased to be an animal. But it was soon found that while fire was a luxury, it was also a menace and needed to be watched and controlled.

Crude forms of fire protection seem to have been in use from the very earliest days of which we have any knowledge, but it was usually in the direction of fire extinguishment rather than fire prevention, and yet we find at times that certain countries and cities in ancient times, usually after a great conflagration, would pass ordinances relating to the safeguarding of the community from a like calamity by requiring that a better class of buildings be erected and enjoining the people to be less careless in their use of fire, this was notably the case after the great fire in ancient Rome under Nero, A.D. 64.

Tacitus in his annals tells us that shortly after the disastrous fire in Rome under Nero, "the several houses built on a new principle were to be raised to a
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certain elevation without beams or wood work, on arches of stone . . . that material being impervious, and of a nature to resist the force of fire.''

The springs of water which before that time had been intercepted by individuals for their separate use, were no longer suffered to be diverted from their channel, but left to the care of commissioners (Castellarii), that the public might be properly supplied, and, in case of fire, "to have a reservoir at hand to stop the progress of the mischief."

But many of these laws could not have been very strictly enforced, as we find in the case of Rome that notwithstanding her excellent laws, and boasted civilization, she had more disastrous conflagrations than any city of ancient or modern times, with perhaps the single exception of the city of London.

The following is a list of some of the great fires in Rome:—

241 B.C. a fire broke out in the Upper City of Rome and spread as far as the Forum. "The Romans thereby lost more wealth in one day than they had got by many victories!"—Universal History.

In 215 and 212 B.C. there were great fires in Rome. 83 B.C. the Capitol was destroyed. 50 B.C. another great fire. Circa 13 B.C., one of the quarters of the City was utterly consumed. 12 B.C. in the reign of Tiberius a dreadful fire occurred which reduced to ashes many stately edifices. Officers were appointed and six hundred slaves employed for the extinguishing of fire in the future.

A.D. 64, under Nero, out of fourteen wards of the City, three only escaped damage or destruction; the fire raged for seven days. The City was re-built with great splendor.
A.D. 80, a fire lasted three days.
A.D. 154, a fire consumed a great part of the City.
A.D. 188, great part of the Capitol, a famous library, and several contiguous buildings, were utterly destroyed by lightning. Eusebius says it consumed whole quarters of the City.

And in A.D. 191 a great many of the finest buildings in Rome were destroyed by a fire that broke out in the Temple of Peace.

The political conditions at this period were such at times that many important cities were without the proper means of extinguishing fires. We find in a letter of "Pliny the Younger" to the Emperor Trajan about the year A.D. 103 a good illustration of this; Pliny, who was Pro-Consul of Bithynia, writes that a great fire had happened in Nicomedia, the chief city of the province, which destroyed many private houses, the senate-house and the Temple of Isis, although the high road lay between them. He says:—"It would scarce have spread so far had it not been assisted by the violence of the winds, and by the stupidity of the people, who manifestly stood idle, and motionless spectators, during the scene of so dreadful a calamity. On the other hand, there is not in the whole City, either an engine to throw up water (sipho), or a single bucket (hama), or any other instrument whatever to extinguish fires; but by the immediate orders, which I have given, preparation of this sort will not be wanting for the time to come."

"You will consider, Sir, whether a corporation of firemen (Collegium Fabrorum), not exceeding 150, should not be established in this City."

Trajan replied as follows:—"I find you are of opinion, that after the examples of several other Cities, a corporation of firemen may be established at Nicomedia. But let us remember, that those Cities, and this particular Province, have been much disquieted by such sort of communities."

* See Walford's Insurance Cyclopaedia.
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“Whatever name we give these Societies, or from whatever cause they may be instituted, the several members will not fail to form factious assemblies, although perhaps those assemblies may not be of any long duration. It will be more eligible, therefore, to make all possible preparation for extinguishing fires to admonish the owners of the houses to be particularly careful in preventing such misfortunes, and to employ all the people, who present themselves as spectators, whenever the occasion shall require their assistance.”

Ancient Rome had its Fire Brigades, which Suetonius tells us were called “Matricularii.” Emperor Augustus instituted seven “Cohortes Vigilum,” as they were called, who paraded the streets at night under the command of their “Praefectus,” equipped with leathern water buckets (hamae) and axes (dolabrae), to prevent fires; the number was afterward increased to twelve with a membership of about 8000. They also served as watchmen or police.

While the facilities for the extinguishment of fires in ancient Rome were at times good, their building laws must have been very lax, as we know that the common people lived in timber dwellings, with thatched roofs, in narrow, irregular streets, during the period of Rome’s greatest magnificence.

It has been conjectured by some that the great fire of A. D. 64 was started by Nero’s orders, for the purpose of getting rid of many of these buildings, so that he could have the streets in certain sections of the City straightened and broadened and build thereon large and beautiful palaces and public buildings.

Plutarch tells us that Crassus, the wealthy Triumvir, acquired much of his wealth by buying, at a very low price, property the buildings of which had been swept away by fire, the former owners being too much impoverished by their loss to replace the buildings de-
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stroyed. These properties he would improve and sell at considerable advantage to himself.

Fire Insurance Contracts not being in use at that early date, property owners suffered more severely than in modern times.

Pliny’s reference to an engine “to throw up water” may have caused surprise.

The Fire Engine, however, was invented as early as 150 B.C. by Ctesibious of Alexandria and was at least used in Rome. Hero or Heron, also of Alexandria, a pupil of Ctesibious, improved on the engine of his preceptor; which he gives an account of in his Treatise on Pneumatics, under “Syphons used in Conflagrations.” Of this it may be said that Hero produced a practical engine on which the moderns have scarcely improved. It is quite likely that engines constructed on this design were used in Alexandria at the time of the burning of the Bruchium Library, about the year 30 B.C. The Hand Engines used in London and Paris up to recent years were on the same principle as this engine of the ancients.

The use of the fire engine seems to have gone out, however, for some reason, during the IV Century, as after that time there is no mention of it found until 1569, when a very primitive sort of engine was invented by Cyprian Lucar. Mention of this appears in a book entitled “Theatrum Instrumentorum et Machinarum,” by Jacobus Bessonus Delphinas, Folio, Lyons, 1578. In it appears a plate No. 52, of a machine known as Lucar’s engine invented by Cyprian Lucar in 1569, and Lucar’s description is given as follows: “I set before your eyes a type of squirt which hath beene devised to cast much water on a burning house, wishing a like squirt and plenty of water to be alwaies in readinesse where fire may do harme; for this kind of squirt may be made to holde a hoggshed of water, or if you will a greater quantitie thereof, and
may be so placed on his frame that with ease and small strength it shall be mounted, imbased or turned to any one side, right against any fixed marke, and made to squirt out the water upon that is to be quenched.''

This unsatisfactory contrivance consisted of a barrel holding about a hogshead of water, filled by buckets through a funnel, and mounted on wheels. A screw at the back forced forward a piston, the object being to eject the water continuously instead of the jerky jets of the hand squirt. This apparatus was intermediate between the squirt, that had been used for the previous 1200 years, and the engine proper.

It was nearly 100 years before any improvement was made over this squirting engine; the changes were but slight. See "Mysteries of Nature and Art," published in 1634.

The first decided improvement of any consequence was made by Leupold, a maker of Fire Engines in Germany. He is reported to have been the first person who introduced the air chamber into the Fire Engine in modern times. It was in 1720 that his account of them appeared, but he is believed to have manufactured them at an earlier date.

The advantages of this engine over Lucar's was that by the use of compressed air he was able to have a steady stream of water for a longer time than the others.

The use of compressed air seems to have been unknown from the IV Century up to about this time. In Europe hand squirts, which in reality are much older than the most primitive engines, were alone used (with the exception of buckets) until the latter part of the XVI Century.

It has been said that even hand squirts were not introduced into London until toward the close of the XVI Century.

Shortly after the introduction of engines into Eng-
land, which was in the early part of the XVII Century, Charles I drew the attention of the Lord Mayor of London to the scarcity of engines which "shoot water for quenching fires," but it remained for the great fire of London in 1666 to arouse the government and the community to the necessity of taking further precautions.

An act was passed the following year (1667) restricting the use of various materials, and specifying how new buildings were to be erected, and also required that each quarter of London be provided with 800 leathern buckets, 15 ladders, 2 hand squirts, 24 pick axes, and sledge hammers for each parish. The twelve city companies and aldermen were required to provide buckets and squirts, and the bellmen had to walk up and down each ward from 10 P.M. to 5 A.M. Every household at the cry of "fire!" had to place a well-armed man at his door and hang a light out, under a penalty of 20s. He was also to have ready at his door water in a vessel, and pumps were ordered to be fixed in every well in the streets. The mayor kept the keys of the engine-house, and orders were issued that the lord mayor and sheriffs and members of the Council were to have speedy notice of any fire, and repair to the spot attended by all the officers, marshals and men. The city workmen were ordered to attend, and an engineer was appointed to give his advice as to blowing up any house, and owners of houses thus demolished were compensated.

In 1707, during the reign of Queen Anne, an act was passed making churchwardens responsible for the fixing of fire plugs in water mains, and tablets in front of the houses to indicate them; also that each parish should have a fire engine. The bellmen were instructed to cry at night:—"Take care of your fire and candle," "Be charitable to the poor and pray for the dead," all of which was very wholesome advice. In 1600 the
bellmen's duty, when a fire broke out was to cry "Fire! Fire! keep in your beds," which was intended no doubt to prevent crowds from collecting and the consequent confusion.

Referring to the duty of the churchwardens of fixing fire plugs in the water mains, it is curious to note that previous to this the water mains of London, which were introduced in 1600, and were of wood, could only be used at the time of a fire by digging down to them and cutting an opening to get a supply of water in addition to what the town pumps could furnish. Spades were, therefore, a necessary part of the equipment in use at that time.

The great fire in London, which lasted four days and consumed 13,200 houses, 87 churches, 6 chapels, the Guild Hall, the Royal Exchange, many hospitals and libraries and a vast number of other stately edifices, entailing a loss of over 10,000,000 pounds, was not only the means of awakening the people to the great need of better fire protection, but called their attention also to the matter of fire insurance. Proposals for a systematic provision of this sort had been previously made, notably in 1633, when Charles I was petitioned for a patent to be granted for a definite period for the sole right of granting insurances against fire in and about the city of London. Although we learn this petition was favorably received and the King expressed his willingness to grant a patent, yet nothing seems to have come of it.

The first person to open a regular office for the transaction of a fire insurance business was a Dr. Nicholas Barbon; this was in 1667, the year after the great fire; he carried it on for his own benefit until 1680, when the business was reconstructed and formed into a company called "The Fire Office," he still retaining an interest, being one of the "Undertakers" as the shareholders were then styled. This was the first
fire insurance company of which we have any knowledge and about which we also have but slight information.

The first fire insurance companies organized elsewhere were in Scotland in 1720, in France in 1745, Germany at Hanover in 1750, in this country at Philadelphia in 1752, and in Russia in 1827. In some part of Holland the practice of insurance had been discouraged until recently under the view that it "increased the negligence of people in guarding against accidents by fire and promoted incendiarism and fraud."

Incendiarism, as we all know, is sometimes the result of a desire to get the insurance money, but it is a crime for which there has been heavy penalties inflicted by all nations from very early times. Capital punishment was the usual method and to this day in Scotland the public prosecutor has the privilege of enforcing this penalty for "wilful fire-raising," as it is called, but rarely does so.

In the State of Pennsylvania the early laws against arson were very severe, the first passed in 1700 provided that:—"Whosoever shall be convicted of wilfully firing any man's house, warehouse, outhouse, barn, or stable, shall forfeit his or her whole estate to the party suffering, and be imprisoned all their lives in the House of Correction at hard labor to the behoof of the said party suffering. And whosoever shall be convicted of wilfully firing any man's stacks or ricks of corn, hay, wood or fence, or any man's vessel, boat or canoe, shall make fourfold satisfaction and suffer a year's imprisonment as aforesaid, to the use and behoof of the party suffering; and if the party offending be unable to make satisfaction, then he or she shall be sold to the behoof of the party suffering."

In 1718 the penalty was increased to capital punishment.

In 1767 benefit of clergy was denied the condemned.
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Setting fire to the State House, any church or meeting house, school or library was in 1772 included as a capital offense without benefit of clergy.

The present law in Pennsylvania for Feloniouserson, that is the setting fire to any dwelling house or
edly exposing a dwelling house, directly or indi-
itly, imposes a fine not exceeding $2000 and impris-
ent at solitary confinement at hard labor for a term
not exceeding twelve years. For malicious burning of
y dwelling or building adjacent, a fine not exceeding
$4000 and imprisonment as above not exceeding twenty
years.

For firing with intent to defraud insurers, the maxi-
mum fine is $1000 and imprisonment seven years.

It is curious to note how far back the laws relating to incendiarism go, and we find in the code of Hammurabi,
King of Babylonia, 2285-2242 B. C.,* the following:—
(Section 25.) "If in a man's house a fire has been
kindled, and a man who has come to extinguish the fire
has lifted up his eyes to the property of the house, and
has taken the property of the owner of the house, that
man shall be thrown into that fire."

It was evidently supposed that, for the purpose of
robbery, he was the man who set fire to the property.

The next reference we find is the law of Moses, about
1300 B. C., Exodus XXII, 6th verse, and is as fol-
lows:—"If fire break out, and eaten in thorns, so that
the stacks of corn, or the standing-corn, or the field be
consumed therewith, he that kindled the fire shall
surely make restitution."

Among primitive people Lex Talionis or the law of retaliation, was general, and even as late as 1866 death by
fire was the punishment meted out in Japan to incen-
diaries, thus making the punishment fit the crime,

* Note:—The time of Abraham.

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a form of poetic justice which we see nowadays only in
the comic opera, as the Mikado.

Even in England, in the time of Edward I, incendiaries were burnt to death.

The Fire Office of 1680 adopted as a mark to identify
the houses they had insured a metal plate in the form
of a Phoenix rising from the flames; this fire mark is
mentioned in a book written in 1720 as seen on many
houses in London. Other companies were formed soon
after: "The Corporation of London Fire Office for in-
suring houses from the evil of fire" in 1681, "The
Friendly Society in 1683," and "The Amicable Contri-
butionship" in 1696. With these companies in the field
"The Fire Office found it necessary to adopt a more dis-
tinctive name, so in 1705 they assumed the name of the
"Phoenix Fire Office," from the design of their fire
mark. It continued in existence until some time in the
early part of the eighteenth century, having some
10,000 members in 1712, after which time we hear
nothing of it. "The Amicable Contributionship" later
took the name of "Hand-in-Hand Fire and Life insur-
ance Society," the new name also being taken from the
design of their fire mark.

This company was organized by a few choice spirits
that met at "Tom's," a coffee-house in St. Martin's
Lane. Their choice of a name was somewhat cumbers-
some; it was first called: "Contributors for Insuring
Houses, Chambers, or Rooms from Loss by Fire, by
Amicable Contribution." This was afterward short-
ened as mentioned above. The business of the con-
cern increased so wonderfully that in 1699 it was de-
cided to purchase an iron chest, with three locks, where
was placed the capital of the company, instead of allow-
ing it to repose indiscriminately in the trousers pockets
of the directors.

Shortly after "The Fire Office" of 1680 was organ-
ized, they published a pamphlet in which they mentioned as part of their plan that they were "assisted by the contrivance and industry of a Company of men, versed and experienced in extinguishing and preventing of the fire." This was, of course, a fire brigade, the first in London and the first organized body of firemen that we know of anywhere, since the time of the Roman "Matricularii" and "Cohortes Vigilum." Unless we except the guards at Kingsay, now Hangchau, in China, that Marco Polo speaks of in his interesting account of his travels, A.D. 1271-1295. He says:— "The houses of the city are provided with lofty towers of stone in which articles of value are stored for fear of fire; for most of the houses themselves are of timber, and fires are frequent in the city."

"Each of the 1200 bridges was provided with a guard of ten men.* . . . Each guard is provided with a hollow instrument of wood and with a metal basin. If they see that any house has caught fire, they immediately beat upon that wooden instrument to give the alarm, and this brings together the watchmen from the other bridges to help extinguish it, and to save the goods of the merchants or others by removing them to the towers above mentioned or by putting them in boats and transporting them to the islands and the lakes."

"For no citizen dare leave his house at night or to come near the fire; only those who own the property,

* While it has been conceded by students in recent years that Marco Polo is generally correct in his description of places and people, his indulgence at times in oriental exaggerations makes it difficult for us to realize that his account of his travels was not a romance. These exaggerations may be accounted for by his receiving information about details, in many instances, from the natives."
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and those watchmen who flock to help, of whom there shall come one or two thousand at least. Moreover, within the city there is an eminence on which stands a tower, and at the top of the tower a slab of wood. Whenever a fire or any other alarm breaks out in the city, a man who stands with a mallet in his hand beats upon the slab, making a noise that is heard to a great distance."

Each of the early fire insurance companies had their own fire brigade and their services were usually confined to property insured in their own office, consequently when a fire occurred and a brigade arrived upon the scene of the outbreak, if they did not see the mark of their own company on the building involved, and there appeared no chance of the fire spreading to any building in which they were interested, they went away and left the extinguishing duties to the firemen belonging to the "office" concerned. If the building was not insured the owner had to depend, in most cases, entirely on the assistance of his neighbors and friends.

One company, "Povey's Exchange House Fire Office," the forerunner of the "Sun," made it obligatory for their men not to assist at any fires but those in which the company was interested, in the following regulation, issued in 1708: Condition 5—"To the end that all subscribers may be certainly assured of immediately receiving assistance at a fire, every 'Exchange House' man, is upon his admission, to bind himself under a penalty to aid and assist no person or persons whatsoever at any fire, either in removing or securing his, her or their moveable goods, etc., upon any pretence or offer of reward whatsoever; but only such as have the 'Exchange House' Mark against their houses."

This sort of thing must have been a strong inducement for people to take out insurance, as London had
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no organized fire protection other than the insurance companies fire brigades, nor had it until the year 1866.

There was, however, one company that was not quite so strict as the "Exchange House Fire Office" in this regard, as we find in the minutes of the board of the "Westminster Fire Office" shortly after they were organized, which was in 1717, that the duties of their "watermen" or firemen were defined as follows: "That the Watermen do repair to all fires that shall come to their knowledge, and give the best of their assistance to extinguish the same."

Another use for the fire mark in those days was that owing to the absence of a Survey Department, the messenger or fireman of the company who affixed the mark would be able to verify the statements of the assured as to the nature and condition of the property proposed for insurance. Surveyors, however, were employed very early in the eighteenth century, i.e., in 1705.

In 1684 the "Friendly Society" required that "to prevent fraud in getting any policy after a house is burnt, no house is to be esteemed a secure house till the Mark hath been actually fixed thereon." The "Hand-in-Hand" also had a similar regulation. In 1731 the latter company published a rule requiring the marks to be put up by the messenger within seven days after the policies were taken out.

The "Union Assurance Society" in their "Deed of Settlement" in 1715 said: "Seven days after issue of policy a Mark, double hand-in-hand emblematical of union, to be affixed on house, etc., where the insured goods are, more publicly to notify such insurance."

It may be well to state here that the early fire marks in England were invariably of lead with the number of the policy usually stamped on. They were brilliantly painted, generally in gold and red, and as the amount covered by a policy rarely exceeded £500 it not infre-
quently occurred that five or six marks of different offices were found upon the same risk, which must have given the old-fashioned houses a rather gay appearance.

In a poem published in the "New Tory Guide," in 1816, referring to Lord Castlereagh, it was said by the author:

“For not e’en the Regent himself has endured
(Though I’ve seen him with badges and orders all shine
Till he looked like a house that was over-insured)
A much heavier burden of glories than thine.”

Fire marks were intended to be concurrent with the insurance and when the renewal premiums were not paid they were removed by the companies, and altered by some of them, by the addition of one or two figures, and reissued.

This custom, however, as the business grew, could not have been kept pace with, as I understand collectors in London have frequently come across marks on buildings on which the policy had been relinquished as far back as the eighteenth century.

The companies used to charge the insured for both policy and mark, not an inconsiderable source of revenue. One eminently respectable and highly-regarded corporation, founded nearly two centuries ago, has it on record that they charged the insurer seven shillings and six pence, whilst they paid the makers of the mark but one shilling and two pence half-penny. Other companies charged different sums, such as nine shillings and six pence, and eight shillings and six pence, the Royal Exchange charging only half a crown. As competition increased, however, the marks were delivered free.

After a time the companies, owing partly to an increased business, and also to the custom of insuring many buildings in more than one office, and the brigades uniting and attending all fires equally, gradually gave up issuing fire marks bearing the number of the policy, and employed in their stead what has been
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called by collectors (as a term of distinction) fire plates, which were the relics of an old custom, but which, in their new form, were used solely as advertisements. These were usually of copper, iron or tin. One large office in London used to keep a man with a ladder constantly employed in putting up its fire plates as advertisements, without regard to whether it has policies on the risk or not.

Early in 1800 the fire offices maintained fifty fire engines and their several complements of firemen; in 1825 the number of engines had been reduced to thirty-eight. About this time the “Sun,” the “Union” and the “Royal Exchange” offices placed their engines under one superintendent, being joined later by the “Atlas” and “Phoenix” (No. 2).

In 1833 the brigades of all the companies were amalgamated into one organization, called the “London Fire Engine Establishment,” the property of, and controlled by, the Association of Offices.

Finally in 1866, the whole was turned over to the city of London by the insurance offices, without compensation, and furthermore they agreed to pay a sum proportionate to the amount of business written within the city limits annually. This was the commencement of the present “Metropolitan Fire Brigade of London,” organized only five years before the present “Philadelphia Fire Department.”

At the time of the organizing of the first Fire Insurance Office in London, Philadelphia was a very small town.

Hazard in Volume III, of “Watson’s Annals,” tells us that from the settlement of Philadelphia, by the English “in 1682 until 1696 no public precautions seem to have been taken against fire.” In the latter year, however, upon petition the Provincial Legislature passed a law for preventing accidents that might happen by fire in the towns of Philadelphia and New
Castle, by which persons were prohibited from cleansing their chimneys by burning them out (resorted to in wet weather) or suffer them to be so foul, as to take fire under a penalty of 40 shillings, and every householder was directed to keep at his dwelling a swab 12 or 14 feet long, and have a bucket ready for fire under a penalty of 10 shillings. Section III of this act reads: "And be it further enacted, that if any person shall presume to smoke tobacco in the streets of Philadelphia either by day or night, (he) shall forfeit for every such offence, twelve pence; all of which said fines shall be paid to the respective Justices of each town for the use of the town, and are to be employed for buying and providing leather buckets, hooks and other instruments and engines against fires, for the public use of each town respectively." This section has never been repealed and still appears on the statute books.

In 1700 Philadelphia contained about 700 dwelling-houses, mostly of wood, but brick buildings predominated in the more closely built-up sections. Not more than two or three outbreaks of fire (apart from chimney fires in wood burning flues) a year seems to have occurred at this time, and there had been no serious conflagration, but there had been enough fire outbreaks to induce the authorities to pass the above-mentioned laws.

The fire buckets were made of thick leather, labeled with the name of the owner, and the number, and when needed the owner was required to proceed to the locality with them for use. The cisterns or pumps were the reservoirs from which the water was obtained, and the people, standing in line, passed in their buckets the water to the fire.

Richard Vaux, in his address delivered before the Philadelphia Hose Company in 1850, draws the following picture of an early Philadelphia fireman: "Let
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us imagine for a moment in those early times, the alarm of ‘fire’ given on ‘First-day;’ when out of each pent-roof door in Front and Second Streets and perhaps as high up town as Fifth Street, in Arch and Market and Chestnut Streets, the Quiet Quaker in his plain, neat First-day suit, his broad-brim, his breeches, and buckle shoes, and yarn stockings, with three or four of these fire buckets on either arm, proceeding in an excited gait to the nearest pump, to stand in line to pass on the water, working with a conviction that he was doing unto others as he would be done by, and, after neighbor A’s roof had been rid of the fire, returning home with his buckets on his arm, with soaked shoes, and muddy stockings; conscious that he had performed a voluntary task, made light by the knowledge that he was one of the many in like condition.”

Vaux further says: “The necessity for a prompt supply of buckets induced a bucket company to be established. The first, consisted of about twenty young men, who agreed to unite for the purpose of prompt delivery of these articles. They obtained a kind of box or crate on wheels, on which the few buckets they could collect were placed, and thus proceeded to the aid of the engines. At their first turn-out the number of buckets was very limited, but tradition, if nothing more reliable, hints that on their return the capital of the Company was greatly augmented, for all the buckets that could be found were safely deposited in the machine, and the night was spent by the young ones in quietly painting out the names of the owners and marking them with the title of the Association. This may not inaptly be regarded as the germ of the first Hose Company.”

Our early ancestors naturally got most of their ideas of public prevention of fires from England, and were not very far behind the mother country in carrying out effective measures for fire protection.
In 1718, Abraham Bickley, a well-known citizen, had a fire engine which he had probably imported from England. City Councils bought it from him for £50 and it was used up to the time of the fire on Fishbourne's wharf, in 1730, which entailed a loss of £5000. As it was found that one engine was not sufficient to cope with a big fire like this, two more were procured from England. They arrived in January of the following year, and another one was ordered from Anthony Nicholls, a Philadelphia mechanic, the first fire engine to be built in this city; it was used for the first time in January, 1733, and a local chronicler said: "It played water higher than the highest in this city had from London."

Franklin in his Autobiography gives an interesting account of the organizing of the first fire company. He says: "About this time (1735) I wrote a paper (first to be read in the Junto, but it was afterwards published) on the different accidents and carelessnesses by which houses were set on fire, with cautions against them, and means proposed of avoiding them. This was spoken of as a useful piece, and gave rise to a project, which soon followed it, of forming a company for the more ready extinguishing of fires, and mutual assistance in removing and securing of goods when in danger. Associates in this scheme were presently found amounting to thirty. Our articles of agreement obliged every member to keep always in good order, and fit for use, a certain number of leathern buckets, with strong bags and baskets (for packing and transporting of goods), which were to be brought to every fire; and we agreed about once a month to spend a social evening together, in discoursing and communicating such ideas as occurred to us upon the subject of fires as might be useful in our conduct on such occasions.

"The utility of this institution soon appeared, and many more desiring to be admitted than we thought
convenient for one Company, they were advised to form another, which was accordingly done; and thus went on one new company after another, till they became so numerous as to include most of the inhabitants who were men of property; and now, at the time of my writing this (1788), though upwards of fifty years since its establishment, that which I first formed, called the Union Fire Company, still subsists; though the first members all are deceased but one, who is older by a year than I am. The fines that have been paid by members for absence at the monthly meetings have been applied to the purchase of fire-engines, ladders, fire-hooks, and other useful implements for each Company; so that I question whether there is a City in the world better provided with the means of putting a stop to beginning conflagrations; and, in fact, since these institutions, the city has never lost by fire more than one or two houses at a time, and the flames have often been extinguished before the house in which they began has been half consumed.”

Among the articles of association of the Union Fire Company it was agreed that some were to superintend the use of water, others were to stand at the doors of houses in danger, and to protect the property from theft. On an alarm of fire at night, lights were to be placed in the windows of houses of members near the fire “in order to prevent confusion, and to enable their friends to give them more speedy and effectual assistance.” There was a treasurer, but no president. Each member in turn served as clerk or secretary for a month. Upon this plan with slight changes, all the fire companies of the city were conducted until long after the Revolutionary War.

Before the end of the year the “Fellowship Fire Company” was organized with a membership of 35, then followed the “Hand-in-Hand” in 1742, the “Heart-in-Hand” in 1743, the “Friendship” in 1747,
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the "Britannia" about 1750, and the "Hibernia" in 1752, with an aggregate membership of 225, employing 8 engines, 1055 buckets and 36 ladders.

The membership of these companies was composed largely of the most prominent citizens: statesmen, lawyers, physicians, merchants and divines. In the "Hand-in-Hand" Fire Company there were four signers of the Declaration of Independence—Clymer, Hopkinson, Rush and Wilson; Chief Justice Tilghman; Bishop White; Provost Smith; Chief Justice Edward Shippen; Governor Thomas Mifflin; Benjamin Chew, Sr., Attorney-General of the Commonwealth; Thomas Willing; John Swift; Col. Lambert Cadwalader; John Cadwalader; James Biddle; William Bingham; Tench Coxe and many other citizens of prominence.

Up to this time fire insurance was unknown in this country. Since about the year 1721, however, individual underwriters had taken risks on vessels and their cargoes and marine insurance had become a matter of common usage.

This form of insurance was first undertaken by John Copson, in Philadelphia, who advertised in the "American Weekly Mercury," under date of May 25, 1721, that he proposed opening an "Office of Public Insurance of Vessels, Goods and Merchandise" on the following Monday at his "house in the High Street" (now Market Street).

In Philadelphia there does not seem to have been any attention given to the subject of fire insurance previous to the year 1752, although the following entry in the diary of John Smith of King Street (now Water), a son-in-law of James Logan and a prominent merchant and marine underwriter, may indicate that he discussed the subject with his father-in-law as early as 1748. The entry is made under date of August 26th of this year and says: "In the evening rode to Stenton; took with me a plan of the damage done by the fire in London, and
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gave to the old gentleman” (James Logan). This refer-
ence is to the fire on March 25th preceding, at Corn-
hill, London, which consumed about 200 houses.
However this may be, we know that the said John
Smith with the co-operation of Joseph Saunders, the
marine underwriter, was instrumental in organizing
the first fire insurance company in this country, “The
Philadelphia Contributionship for the insurance of
houses from Loss by fire.”
The company was duly organized on April 13, 1752.
James Hamilton, the Lieutenant-Governor of the
Province, and Benjamin Franklin were the first to sub-
scribe to the Deed of Settlement. The directors chosen
at this meeting were Benjamin Franklin, William Cole-
man, Philip Syng, Samuel Rhoads, Hugh Roberts, Is-
rael Pemberton, Jr., John Mifflin, Joseph Morris,
Joseph Fox, Jonathan Lane, William Griffitts, and
Amos Strettell. John Smith was elected treasurer and
Joseph Saunders clerk. The first policy was taken out
by the Treasurer, John Smith, on his dwelling-house on
the East Side of King Street (now Water), between
Mulberry (now Arch) and Sassafras (now Race
Street).
The company was started on the plan of the “Ami-
cable Contributionship of London,” even to its Deed of
Settlement, and the fire mark, four hands clasping
wrists, in lead, on a wooden shield, was similar to the
mark of the former company, which was two clasped
hands with a crown above, also of lead, but without a
shield.
At first each policy was for a term of seven years.
A certain deposit was made at the beginning of the
term and a policy issued. An account was opened with
each contributor or policy holder and his deposit was
charged its proportion of the expenses and losses, and
credited with any interest that might have been earned.
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If, during the seven years, the deposit, owing to losses, was used up, another deposit was made.

At the expiration of the seven years the contributor might withdraw as much of his deposit as remained or renew his insurance.

It was therefore at that time practically a dividend-paying company and so remained until the year 1763, when it was decided that the interest should be carried to a common account, and out of it the losses should be paid, and that the deposit money should not be drawn upon until the interest was exhausted. The contributor, however, was not to be liable beyond his deposit money.

In this way they built up a surplus which in time made it one of the strongest concerns in the city.

In 1894 at a meeting of the contributors it was decided, after a lapse of 131 years, to resume the paying to the contributors of a portion of the earnings of the association. Since then a dividend of 10% has been paid annually.

In 1810 the writing of seven-year policies was discontinued and perpetual insurance written instead, with the privilege of withdrawal by the insured, or cancellation by the company, with the return of the premiums paid, at the expiration of any seven-year period. It was not until 1836 that the present form of policy was adopted, allowing the insured to withdraw his deposit on five days' notice, and the company could cancel only on thirty days' notice.

For some years after the company was organized, to secure punctuality in the attendance of the directors, a fine of two shillings was levied upon those who were not present at the meetings, and one shilling if they came late.

After a time the sum derived from this source had accumulated to quite a considerable amount and was invested, after some discussion, in milestones;
these were numbered consecutively and placed from the intersection of Front and High Streets to the river's edge opposite Trenton, N. J.; this was in 1764. Later on the same fund having again increased to a respectable figure by the fines from the derelict, a like work was pursued towards the boundary of the province to the south. This was a work of public benefaction that had no connection with insurance, and the directors were to be commended for their public spirit in carrying out this useful work.

Following out the English custom a charge was made for the policy, survey and mark, which for many years was 7 shillings and 6 pence; the mark cost the company 2 shillings and 6 pence each. At the time of the Revolution lead was in such demand for the use of the army, in the form of bullets, that this metal became quite scarce, and the charge for policy, survey and mark during this period was therefore increased to 17 shillings.

The next insurance company to be organized was the "Mutual Assurance Company for insuring houses from Loss by fire in and near Philadelphia," familiarly known as the "Green Tree" from the design of a tree which appears on the seal and policy and the well-known fire mark, or house badge, as it is sometimes called. This tree is emblematic of the cause which led to the formation of the company. It seems that the "Contributionship" in 1784 passed a by-law in which they declined to further insure houses having trees about them, and consequently those of the policy holders affected by this new rule got together and organized a new company, and to emphasize the fact that they would take insurance on houses thus situated, they adopted a green tree as their emblem. Such insurance, however, was not taken without an additional charge; the following by-law in regard to this was passed at one of their earliest meetings, November 24, 1784,
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which states: "The highest rate for the first tree not to exceed 35 shillings and the lowest rate for the same not less than 15 shillings, and for the second and every other tree not more than 20 shillings or less than 10 shillings." Scharf and Westcott in their "History of Philadelphia" give as the reason for the "Contributionship" making the change, that the house of one of their contributors caught fire from a burning tree in front of it. This I very much question; it was more likely due to the difficulty of getting at fires by reason of the trees being in the way.*

The brass die for casting the leaden tree used in the fire mark of this company was made in 1785 by Samuel Parker, Brass Founder, Arch Street, between Fourth and Fifth.

Until August 12, 1801, policies were written for seven years, after that perpetually.

We next hear of the first and for ten years the only Fire Insurance Office in New York City; "The Mutual Assurance Company for Insuring Houses from Loss by Fire in New York," organized in 1787, at what was called the Tontine Coffee House, corner of Water and Coffee House Slip (now Wall Street). Its business was confined to within two miles of the City Hall, then in Water Street.

At a meeting of the directors held October 26, 1787, the Secretary-Treasurer was instructed to prepare a badge of tin, oval in shape, painted black, with the words "Mutual Assurance" in gilt letters, with space for the policy number below. These were used as fire marks and placed over the doors of the houses insured, and continued to be thus used until 1809, when the company became a stock concern under the shorter name

* This has been verified within the past year by one of the officials of the "Contributionship" who has very recently come across a statement in the minutes of this period in which it is distinctly announced that this was the reason given by the Directors.
of the "Mutual Assurance Company," when their use for some reason was discontinued.

In 1846 the company finally became the "Knickerbocker Fire Insurance Company," which is still in existence under that name.

Then follows our own "Insurance Company of North America," originally intended as a life insurance association, called the "The Universal Tontine," modeled after a similar scheme in Boston and one in New York, both of which came to naught. It was soon found that such a plan was not popular, so the promoters decided to form a general insurance company in its stead. The stock was soon subscribed for to the requisite amount, and the company formed. The first meeting was held in the "State House," December 10, 1792, and the articles of association adopted. Article VIII gives the objects of the organization as being:

"To make such Insurances upon Vessels and Merchandise as Sea, or going to Sea, or upon the life or lives of any person or persons, or upon any goods, wares, merchandize, or other property gone or going by land or water; and at such rates of Insurance or Premium as they shall deem advisable."

Considerable delay was occasioned in securing a charter, by reason of the opposition of those who were doing a marine underwriting business, as it was feared the competition and consequent reduction in rates would interfere with their business; but the opposition was finally overcome and a charter was granted April 14, 1794, being but four days previous to the charter for the "Insurance Company of the State of Pennsylvania," which was the next company to be organized in this city.

The same year (1794) there were organized two other companies, the "Baltimore Equitable Society for Insuring Houses from Loss by Fire" and the "Mutual Assurance Society against Fire on Buildings in the..."
State of Virginia," both of which are still in existence under their original names. The former company was organized under a Deed of Settlement similar to that of the Hand-in-Hand of London and a fire mark adopted of two clasped hands with the date of organization, 1794, on a square iron plate—earliest hands on wooden board. The latter company had no fire mark.

In Boston after repeated efforts a company was finally chartered, June 25, 1795, called the "Massachusetts Fire Insurance Company." The founders were: Jesse Putnam, William Wetmore, Will Shattuck, Jonathan Harris, Jno. Winthrop, Samuel Salisbury, William Brown, and Jno. Andrews, all prominent citizens of Boston.

* Fearing that the enterprise would not quickly interest investors, it was provided in the charter, that nine years be allowed for the full payment of stock, capital to be $300,000 with privilege of increasing it to $600,000, as the charter was granted for only twelve years, but three years would elapse between the time the capital was paid in and the charter's expiration.

The first office was at No. 16 State Street in Boston. The company was successful from the start, a dividend was paid the first year and for many years after. In 1799 the name was changed to "The Massachusetts Fire and Marine Insurance Company" and so continues until now.

In 1798 the first Mutual Fire Insurance Company in New England was started under the name of the "Massachusetts Mutual Fire Insurance Company."

Insurance was written for a period of seven years, as was the case with most of the mutual fire insurance

* I have received a communication from the President of the Hartford Fire Insurance Co., of Hartford, Conn., in which he states that Policy No. 2 of the company, bearing the date Feb. 8, 1794, had been recently discovered, which makes this the first company to be organized in New England as far as I am able to learn.
companies at this time, and no policy was to be issued for a larger amount than four-fifths of the value of the building insured.

Their first office was at the house of Mr. Joseph Callender, near the Branch Bank, State Street, Boston.

In 1799 there were in Philadelphia 30 fire companies having a membership of 1429, equipped with 31 engines, 3669 buckets, 73 ladders, 706 bags, and 53 baskets. The bags were used to hold property which was in danger, to save it from risk of theft, and the baskets were required to put the buckets in when they had been collected after the fire.

The fire companies from the time of the introduction of fire insurance received large contributions towards their maintenance from the fire insurance offices, which gave the fire marks a significance considerably removed from that of being merely advertising mediums for their respective offices.

Perhaps the companies benefiting most by the use of fire marks were the "Fire Association" and the "United Firemen." The former was started as the "Fire Hose Association of Philadelphia" in 1813, formed by the hose companies and intended as a tribunal to settle disputes between the hose companies and to establish for them a certain and permanent support. These objects not having been satisfactorily accomplished, the Association was dissolved in 1817, and a new one formed the same year, of both hose and engine companies and called the "Fire Association of Philadelphia." It was governed by a board composed of two delegates from each company. In 1818 they entered into the business of insurance, for which they obtained a charter March 27, 1820. No dividend was to be declared until the capital stock amounted to $100,000, and no company was to be entitled to a dividend which did not, in the opinion of the directors of the Association, possess a complete equipment for the
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extinguishment of fires. Each member of the companies in the Association could effect insurance at 5% less premium than non-members and the Association could grant relief to any of the associated companies in need of it. This will explain why we see so many fire marks of this company, some 40,000 having been used, still remaining on houses throughout the city, it was only natural that the firemen should be especially careful to protect the property that was insured in their own company.

The "United Firemen's Insurance Company," organized in 1860, by some 28 fire companies, being those not included in the Fire Association, received the same advantages from their own companies that the Fire Association did from theirs. In connection with this company it is related that some years ago a well-known citizen effected insurance with them on a row of houses and shortly after, finding the company had put their fire mark on each house, wrote to them a letter stating that he did not want any "lager beer signs" on his property, and to send at once and have them removed or he would order the policies cancelled.

In 1871 the Volunteer Fire Department which had had only a semi-official connection with the City Government, was superseded by the paid Fire Department, as it is called, known officially as the Philadelphia Fire Department, the city having complete control.

With the going out of the Volunteers the use of fire marks ceased. The badge or plate of the Lumbermen's Insurance Company (organized 1873) being used entirely as an advertisement, is not classed as a mark, so called.

Since the founding of the Union Fire Company in 1735 Philadelphia has seen many changes and improvements in the fire protection of the city. She has always been among the first to adopt improved methods of preventing and putting out of fires and has at present the
most efficient fire department and best water supply (for the purpose) in the country. Her insurance companies are known as the most conservative and solvent. Each of the first four organized, all over 100 years old, is still doing a prosperous and flourishing business.

I will close by quoting from Shakespeare, who truly says:

"A little fire is quickly trodden out,
Which being suffered rivers cannot quench."

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