



# ***CHIEF'S FILE CABINET***

***Ronny J. Coleman***

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## Footprints in the Sands of Time; the History of Fire Sprinklers

No one remembers who invented fire. According to archeologists and anthropologists, the discovery of fire had a profound effect on civilization. Early humanity found fire to be so important that they created a myth that it was given to the human race by a God, Prometheus. It is interesting that the other Gods including Zeus proceeded to punish Prometheus for this act. The legacy of fire in society has come down over the millennia as being both a curse and a blessing depending on whether you were using fire for humane purposes, or fire was destroying life and property because it was out of control. We do have better records on the human races effort to control fire.

For example, we can go back and look at bucket brigades, hose carts, steamers and all of the other technology that has been embraced by society as a means of coping with unwanted fire. And here is what is really interesting; we have really good records of the effort to finally eliminate fire from the inside of structures. The technology I am describing is called the "Automatic Fire Sprinkler". If I was giving a test to a group of firefighters, I could possibly ask this fill-in question: Who invented the fire sprinkler?

I strongly suspect that many firefighters would say Grinnell and/or Parmalee, but the reality is that people have been tinkering with the concept of a water supply, a pipe, a plug and a nozzle for over 300 years. There were several patent applications in the UK before it surfaced here in the US. The two gentlemen I just mentioned got a lot of visibility for their invention because they made it work in an industrial setting that was quite challenging. In order to understand the birth of the modern sprinkler system you have to understand the birth of the industrialized world. Sprinklers were first used to protect major industrial facilities because of the economic impact. They worked.

Let's take this discussion one step further. Who invented residential fire sprinklers? We have lots of candidates for that notoriety but in reality it goes all the way back to the early 1920's. In my files, I have an advertisement for a junior sprinkler system for basements that was placed in the Saturday Evening Post about the same time that flappers were creating a new social fabric.

Today, almost 100 years later, we have sprinklers being used very successfully in both the industrial and residential scenarios and simultaneously we have controversy about their use. As an amateur historian, I love keeping track of how much we continue to forget about how far we have come. As a professed advocate, I am always interested in how much room there is for continued improvement.

On the one hand, the past practice of the fire service using sprinklers clearly indicates an impact on America's fire problem. Current efforts to expand that effectiveness are certainly part of our present.



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Unfortunately, there are those who refuse to recognize this effectiveness. But, more importantly our current struggles are going to lead us into the future one way or the other.

I am not the only one who is collecting the institutional memory.

Robbie Robertson, former State Fire Marshal for the State of Virginia, recently forwarded to me a document from the NFPA Quarterly in January of 1965. The article is entitled "Sprinkler Legislation in the United States", A Review Based on Data Compiled by Ira G. Hoagland, Secretary of the National Automatic Sprinkler Association. I don't intend to repeat everything in the document, however I am going to create a PDF of this document and share it with sprinkler advocates I know. This is so they can feel proud of how long this battle has been going on. According to this quarterly, there were only 150 sprinkler codes in existence in 1965. 138 of them were city ordinances. 12 were state laws. According to Hoagland, the four states that led the use of sprinklers were Massachusetts, New York, Pennsylvania, and Wisconsin.

The article provides a map of the distribution of cities in 1965 that had sprinkler codes in existence. The map is interesting in that there is a lot of wide open space with no dots. Hoagland went on to explain how the National Boards Building Code was being used in 1965 to address issues with specific fire risks and the role of local fire officials in resolving sprinkler installations. The article talked a lot about other factors that were forcing fire departments to use sprinklers such as access, lives at risk in multi-story buildings, basements and specific risks.

Fast forward to today. If you would really like to see what we have accomplished since 1965, review the history work done by Fire Marshal Steve Hart, former member of the National Fire Sprinkler Association. Hart's work clearly indicates that sprinklers are becoming more and more a part of the arsenal against fire loss starting at the local level up and at the national level down. New pages are being written in the history book almost daily. With the reaction of states, counties and local governments making decisions on the use of sprinklers as part of the risk mitigation strategy against unwanted fire new dots are being put on the map.

I have often wondered if we could go back with a time machine and talk to the firefighters of previous generations, what would they say about sprinklers. At what point in time would they have come to the recognition that fire sprinklers are by far the most effective way of controlling fires in structures? Who would have been the guru? Would it have been scientist Steven Hartley who proposed compartmentalization as fire resistance in the 1700's? Would it have been Architect Sir Christopher Wren, who proposed to King Charles II in 1666 that buildings should not be so dense and that access should be provided? Would our seminal US Fire Chief Benjamin Franklin have installed sprinklers in early America if he could have?



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That is a useless exercise because the past is what it is. The present is what it is. The future is going to depend a great deal on continued dedication by sprinkler advocates and by fire professionals who realize the common sense solution that is offered by sprinkler technology. Maybe we can't clearly identify who invented fire and maybe we have to share the recognition among various parties as to who has brought it forward to where we are today. But I can assure you that with modern technology, we ought to be able to keep track very effectively of those who are going to make a difference in the future.

They are the ones who are going to continue the struggle against other business interests that are trying to destroy sprinkler technology.

Some of you may recall a book I wrote entitled "Alpha to Omega". This book chronicled the work done in San Clemente, Cobb County Georgia and the Marriott Corporation in the 70s. I would consider that period of time to be directly linked to the publishing of America Burning and a continued focus on the NFPAs support of sprinklers as reflected in Hoagland's article.

Which list do you want your name on? The ally or the adversary? Someone 100 years from today will be rewriting our history and hopefully your name will be part of the future.